The Semantics of RĀ:
Let's be more specific!

Masoud Jasbi
Stanford University

Snapshot

- Definiteness = existence presup + uniqueness presup.

Snapshot

- Definiteness = existence presup + uniqueness presup.
- In Farsi, Rā provides the existence presupposition.

Snapshot

- Definiteness = existence presup + uniqueness presup.
- In Farsi, Rā provides the existence presupposition.
- The uniqueness presupposition is provided by the absence of indefinite markers.

Snapshot

- Definiteness = existence presup + uniqueness presup.
- In Farsi, Rā provides the existence presupposition.
- The uniqueness presupposition is provided by the absence of indefinite markers.
- Rā's existence presupposition is compatible with indefinites.

Previously on RĀ . . .

Semantic Accounts of RĀ

1. Specific
    - Epistemic (Karimi, 1990)
    - Scopal
2. Definite (Mahootian, 1997), among others
3. Existentially Presupposed
    - Topical (secondary) (Dabir-Moghaddam, 1992; Dalrymple and Nikolaeva, 2011)
    - Identifiable (Shokouhi and Kipka, 2003)
    - Partitively Specific (Karimi, 1999, 2003)
    - Existentially Presupposed (Ghomeshi, 1996)

To-Do's!

- Define some semantic primitives: EXISTENCE, UNIQUENESS, and COMMON GROUND.

To-Do's!

- Define some semantic primitives: EXISTENCE, UNIQUENESS, and COMMON GROUND.
- Define specific, definite, and existentially presupposed using the primitives.

To-Do's!

- Define some semantic primitives: EXISTENCE, UNIQUENESS, and COMMON GROUND.
- Define specific, definite, and existentially presupposed using the primitives.
- Map the hypothesis space.

To-Do's!

- Define some semantic primitives: EXISTENCE, UNIQUENESS, and COMMON GROUND.
- Define specific, definite, and existentially presupposed using the primitives.
- Map the hypothesis space.
- Show the problems with the specificity hypothesis.

To-Do's!

- Define some semantic primitives: EXISTENCE, UNIQUENESS, and COMMON GROUND.
- Define specific, definite, and existentially presupposed using the primitives.
- Map the hypothesis space.
- Show the problems with the specificity hypothesis.
- Show the problems with the definiteness hypothesis.

To-Do's!

- Define some semantic primitives: EXISTENCE, UNIQUENESS, and COMMON GROUND.
- Define specific, definite, and existentially presupposed using the primitives.
- Map the hypothesis space.
- Show the problems with the specificity hypothesis.
- Show the problems with the definiteness hypothesis.
- Provide more data for the presuppositional hypothesis.

To-Do's!

- Define some semantic primitives: EXISTENCE, UNIQUENESS, and COMMON GROUND.
- Define specific, definite, and existentially presupposed using the primitives.
- Map the hypothesis space.
- Show the problems with the specificity hypothesis.
- Show the problems with the definiteness hypothesis.
- Provide more data for the presuppositional hypothesis.
- Provide a compositional account of definites and simple indefinites.

To-Do's!

- Define some semantic primitives: EXISTENCE, UNIQUENESS, and COMMON GROUND.
- Define specific, definite, and existentially presupposed using the primitives.
- Map the hypothesis space.
- Show the problems with the specificity hypothesis.
- Show the problems with the definiteness hypothesis.
- Provide more data for the presuppositional hypothesis.
- Provide a compositional account of definites and simple indefinites.

Defining the Primitives

Definition

A nominal implies EXISTENCE if it denotes a nonempty set ($|[\![\text{NP}]\!]| \geq 1$).

Defining the Primitives

Definition

A nominal implies EXISTENCE if it denotes a nonempty set ($|[\![\text{NP}]\!]| \geq 1$).

Definition

A nominal implies UNIQUENESS if it denotes a singleton set ($|[\![\text{NP}]\!]| = 1$).

Defining the Primitives

Definition

A nominal implies EXISTENCE if it denotes a nonempty set ($|[\![\text{NP}]\!]| \geq 1$).

Definition

A nominal implies UNIQUENESS if it denotes a singleton set ($|[\![\text{NP}]\!]| = 1$).

Definition

COMMON GROUND is the mutually recognized shared information between the speaker(s) and the addressee(s). (Stalnaker, 1978)

Defining the Primitives

Definition

A nominal implies EXISTENCE if it denotes a nonempty set ($|[\![\text{NP}]\!]| \geq 1$).

Definition

A nominal implies UNIQUENESS if it denotes a singleton set ($|[\![\text{NP}]\!]| = 1$).

Definition

COMMON GROUND is the mutually recognized shared information between the speaker(s) and the addressee(s). (Stalnaker, 1978)

Definition

An implication is PRESUPPOSITIONAL if it is entailed or implied by the COMMON GROUND.

To-Do's!

- ~~Define some semantic primitives: EXISTENCE, UNIQUENESS, and COMMON GROUND.~~
- Define specific, definite, and existentially presupposed using the primitives.
- Map the hypothesis space.
- Show the problems with the specificity hypothesis.
- Show the problems with the definiteness hypothesis.
- Provide more data for the presuppositional hypothesis.
- Provide a compositional account of definites and simple indefinites.

Defining The Accounts of Rā

Definition

A nominal that implies the **existence** and **uniqueness** of its descriptive content is SPECIFIC.

Defining The Accounts of Rā

Definition

A nominal that implies the **existence** and **uniqueness** of its descriptive content is SPECIFIC.

Definition

A nominal that **presupposes** the **existence** and **uniqueness** of its descriptive content is DEFINITE. (Russell, 1905; Strawson, 1950)

Defining The Accounts of Rā

Definition

A nominal that implies the **existence** and **uniqueness** of its descriptive content is SPECIFIC.

Definition

A nominal that **presupposes** the **existence** and **uniqueness** of its descriptive content is DEFINITE. (Russell, 1905; Strawson, 1950)

Definition

A nominal that **presupposes** the **existence** of its descriptive content is EXISTENTIALLY PRESUPPOSED.

To-Do's!

- ~~Define some semantic primitives: EXISTENCE, UNIQUENESS, and COMMON GROUND.~~
- ~~Define specific, definite, and existentially presupposed using the primitives.~~
- Map the hypothesis space.
- Show the problems with the specificity hypothesis.
- Show the problems with the definiteness hypothesis.
- Provide more data for the presuppositional hypothesis.
- Provide a compositional account of definites and simple indefinites.

Hypothesis Space

	$\lvert[\![\text{NP}]\!]\rvert$ =	0	1	2+
Common Ground Status	**Presupposed**		Definite	Existentially Presupposed
	At-issue		Specific	Indefinite

Hypothesis Space

	$\lvert[\![\text{NP}]\!]\rvert$ =	0	1	2+
Common Ground Status	**Presupposed**		Definite	Existentially Presupposed
	At-issue		Specific	Indefinite

Which hypothesis best covers the rā data?

To-Do's!

- ~~Define some semantic primitives: EXISTENCE, UNIQUENESS, and COMMON GROUND.~~
- ~~Define specific, definite, and existentially presupposed using the primitives.~~
- ~~Map the hypothesis space.~~
- Show the problems with the specificity hypothesis.
- Show the problems with the definiteness hypothesis.
- Provide more data for the presuppositional hypothesis.
- Provide a compositional account of definites and simple indefinites.

Types of Specificity (Farkas, 1994)

- Specific := Unique, fixed referent.

Types of Specificity (Farkas, 1994)

- Specific := Unique, fixed referent.

1. Epistemic: the speaker has a fixed referent in mind.

(Fodor and Sag, 1982)

2. Scopal: the referent is fixed with respect to other semantic operators (wide scope).

Types of Specificity (Farkas, 1994)

- Specific := Unique, fixed referent.

1. Epistemic: the speaker has a fixed referent in mind.

(Fodor and Sag, 1982)

2. Scopal: the referent is fixed with respect to other semantic operators (wide scope).

- Neither work for rā.

Epistemic Specificity

- Rā appears on nominals that are not epistemically specific.
  (Rā $\not\Rightarrow$ Epistemically Specific)

Epistemic Specificity

- Rā appears on nominals that are not epistemically specific.
  (Rā $\not\Rightarrow$ Epistemically Specific)

Example

(1) Context: My three-year-old cousin takes my phone and accidentally deletes a picture. I see that my pics are 99 instead of 100 but I don't know which picture is deleted:

ne-mi-dun-am	kodum	aks-o	in	bache	pāk	karde
NEG-MI-know-1.SG	which	pic-OM	this	kid	clean	do.PST.3.SG

"I don't know which picture this kid has deleted."

Epistemic Specificity

- Rā appears on nominals that are not epistemically specific.
  (Rā $\not\Rightarrow$ Epistemically Specific)

Example

(2) Context: There are some plates on the table.

ye boshqāb-o be-de
ID plate-OM give

"Give me a plate!"

Epistemic Specificity

- Epistemically specific referents can appear without Rā.
  (Epistemically Specific $\not\Rightarrow$ Rā)

Epistemic Specificity

- Epistemically specific referents can appear without Rā.
  (Epistemically Specific $\not\Rightarrow$ Rā)

Example

(3) diruz ye xune did-im tu Fereshteh
yesterday ID house see.PST-3.PL in Fereshteh
"We saw a house in Fereshteh yesterday."

Scopal Specificity

- Rā appears on nominals that are not scopally specific (are not wide scope).
  (Rā $\not\Rightarrow$ Scopally Specific)

Scopal Specificity

- Rā appears on nominals that are not scopally specific (are not wide scope).
  (Rā $\not\Rightarrow$ Scopally Specific)

Example

(4) Context: Dance Class; Equal number of girls and boys. Boys have to choose partners.

har pesar-i ye doxtar-o entexāb kard
each boy-IC ID girl-OM choose do.PST-3.PL

"Every boy chose a girl." ($\forall > \exists$)

Scopal Specificity

- Rā appears on nominals that are not scopally specific (are not wide scope).
  (Rā $\not\Rightarrow$ Scopally Specific)

Example

(5) Context: Maryam has three job offers. She has to pick one by tomorrow.

mi-xād ye kār-o tā fardā qabul kon-e vali
MI-want3.SG ID job-OM until tomorrow accept do.PST-3.PL but
hanu ne-mi-dun-e kodum-o
yet NEG-MI-know-3.SG which-OM

"She wants to accept a job by tomorrow but she still doesn't know which" (WANT > ∃)

Scopal Specificity

- Scopally specific referents can appear without Rā.
  (Scopally Specific $\not\Rightarrow$ Rā)

Example

(6) Context: A Boring Restaurant where everyone always orders burgers. The waiter says:

inja hame hamishe ye qazā sefāresh midan
here each boy-IC ID girl choose do.PST-3.PL

"Everyone always orders the same food here." ($\exists > \forall > \forall$)

Scopal Specificity

- Generally, hard to find a correlation between scope and object marking.

Example

(7) Context: Dance Class.

hame-ye pesar-ā ye doxtar-o dust dār-an
all-EZ boy-PL ID girl-OM friend have.PST-3.PL

"All the boys love some girl." ($\forall > \exists$)
"There is a girl that all the boys love." ($\exists > \forall$)

Hypothesis Space

	$\lvert[\![\text{NP}]\!]\rvert$ =	0	1	2+
Common Ground Status	**Presupposed**		Definite	Existentially Presupposed
	At-issue		Specific	Indefinite

To-Do's!

- ~~Define some semantic primitives: EXISTENCE, UNIQUENESS, and COMMON GROUND.~~
- ~~Define specific, definite, and existentially presupposed using the primitives.~~
- ~~Map the hypothesis space.~~
- ~~Show the problems with the specificity hypothesis.~~
- Show the problems with the definiteness hypothesis.
- Provide more data for the presuppositional hypothesis.
- Provide a compositional account of definites and simple indefinites.

Definiteness

Example

(8) Context$_{E^+U^+}$: There is a room. Ali goes in. There is a mouse.

Definiteness

Example

(8) Context$_{E^+U^+}$: There is a room. Ali goes in. There is a mouse.

a. mush-[o] mi-bin-e
mouse-OM MI-see-3.SG
"He sees the mouse."

b. # ye mush-[o] mi-bin-e
ID mouse-OM MI-see-3.SG
"He sees a mouse."

Definiteness

Example

(8) Context$_{E^+U^+}$: There is a room. Ali goes in. There is a mouse.

a. mush-o mi-bin-e
mouse-OM MI-see-3.SG
"He sees the mouse."

b. # ye mush-o mi-bin-e
ID mouse-OM MI-see-3.SG
"He sees a mouse."

- ø-NP-rā presupposes uniqueness.

Definiteness

Example

(9) Context$_{E^+U^-}$: There is a room. Ali goes in. There are two mice.

Definiteness

Example

(9) Context$_{E^+U^-}$: There is a room. Ali goes in. There are two mice.

a. # mush-[o] mi-bin-e
mouse-OM MI-see-3.SG
"He sees the mouse."

b. ye mush-[o] mi-bin-e
ID mouse-OM MI-see-3.SG
"He sees a mouse."

Definiteness

Example

(9) Context$_{E^+U^-}$: There is a room. Ali goes in. There are two mice.

a. # mush-o mi-bin-e
mouse-OM MI-see-3.SG
"He sees the mouse."

b. ye mush-o mi-bin-e
ID mouse-OM MI-see-3.SG
"He sees a mouse."

- ø-NP-rā presupposes uniqueness.
- ye-NP-rā does not presuppose uniqueness.

Definiteness

Example

(9) Context$_{E^+U^-}$: There is a room. Ali goes in. There are two mice.

a. # mush-[o] mi-bin-e
mouse-OM MI-see-3.SG
"He sees the mouse."

b. ye mush-[o] mi-bin-e
ID mouse-OM MI-see-3.SG
"He sees a mouse."

- ø-NP-rā presupposes uniqueness.
- ye-NP-rā does not presuppose uniqueness.
- Since definites presuppose existence AND uniqueness, rā cannot be a definiteness marker.

Definiteness

Example

(9) Context$_{E^+U^-}$: There is a room. Ali goes in. There are two mice.

a. # mush-[o] mi-bin-e
mouse-OM MI-see-3.SG
"He sees the mouse."

b. ye mush-[o] mi-bin-e
ID mouse-OM MI-see-3.SG
"He sees a mouse."

- ø-NP-rā presupposes uniqueness.
- ye-NP-rā does not presuppose uniqueness.
- Since definites presuppose existence AND uniqueness, rā cannot be a definiteness marker.
- Rā can presuppose existence and be half of definiteness!

Hypothesis Space

	$\lvert[\![\text{NP}]\!]\rvert$ =	0	1	2+
Common Ground Status	**Presupposed**		Definite	Existentially Presupposed
	At-issue		Specific	Indefinite

To-Do's!

- ~~Define some semantic primitives: EXISTENCE, UNIQUENESS, and COMMON GROUND.~~
- ~~Define specific, definite, and existentially presupposed using the primitives.~~
- ~~Map the hypothesis space.~~
- ~~Show the problems with the specificity hypothesis.~~
- ~~Show the problems with the definiteness hypothesis.~~
- Provide more data for the presuppositional hypothesis.
- Provide a compositional account of definites and simple indefinites.

Presupposed Existence

Example

Context$_{E^+U^-}$: There is a room. Ali goes in. There are two mice.

Presupposed Existence

Example

Context$_{E^+U^-}$: There is a room. Ali goes in. There are two mice.

(10) a. # ye mush mi-bin-e
ID mouse MI-see-3.SG
"He sees a mouse."

b. ye mush-$\boxed{\text{o}}$ mi-bin-e
ID mouse-OM MI-see-3.SG
"He sees a mouse."

Presupposed Existence

Example

Context$_{E^-U^-}$: There is a room. Ali goes in.

Presupposed Existence

Example

Context$_{E^-U^-}$: There is a room. Ali goes in.

(11) a. ye mush mi-bin-e
ID mouse MI-see-3.SG
"He sees a mouse."

b. # ye mush-o mi-bin-e
ID mouse-OM MI-see-3.SG
"He sees a mouse."

Presupposed Existence

Example

Context$_{E^-U^-}$: There is a room. Ali goes in.

(11) a. ye mush mi-bin-e
ID mouse MI-see-3.SG
"He sees a mouse."

b. # ye mush-o mi-bin-e
ID mouse-OM MI-see-3.SG
"He sees a mouse."

- rā presupposes the existence of its descriptive content.

Prediction: Denying the Existence

- Explicitly denying the existence presupposition results in infelicity.

Prediction: Denying the Existence

- Explicitly denying the existence presupposition results in infelicity.

Example

(12) Ali emruz kār-i na-dāsht vāse hamin kār-i anjām
Ali today work-IC NEG-have.PST for this work-IC finish
na-dād
NEG-give.PST.3SG
"Today Ali didn't have anything to do so he didn't do anything."

Prediction: Denying the Existence

- Explicitly denying the existence presupposition results in infelicity.

Example

(13) # Ali emruz kār-i na-dāsht vāse hamin kār-i-ro
Ali today work-IC NEG-have.PST for this work-IC-OM
anjām na-dād
finish NEG-give.3SG
"Today Ali didn't have anything to do so he didn't do anything."

Prediction: Denying the Existence

- Explicitly denying the existence presupposition results in infelicity.

Example

(14) Ali emruz xeyli kār dāsht vali kār-i-ro anjām
Ali today very work have.PST but work-IC-OM finish
na-dād
NEG-give.3SG
"Ali had a lot of work to do but he didn't do any of them."

Prediction: Proper Names

Example

(15) a. Ali Saburi mi-shnās-i?
Ali Saburi MI-know-2SG
"Do you know anyone named Ali Saburi?"

b. Ali Saburi-ro mi-shnās-i?
Ali Saburi-OM MI-know-2SG
"Do you know Ali Saburi?"

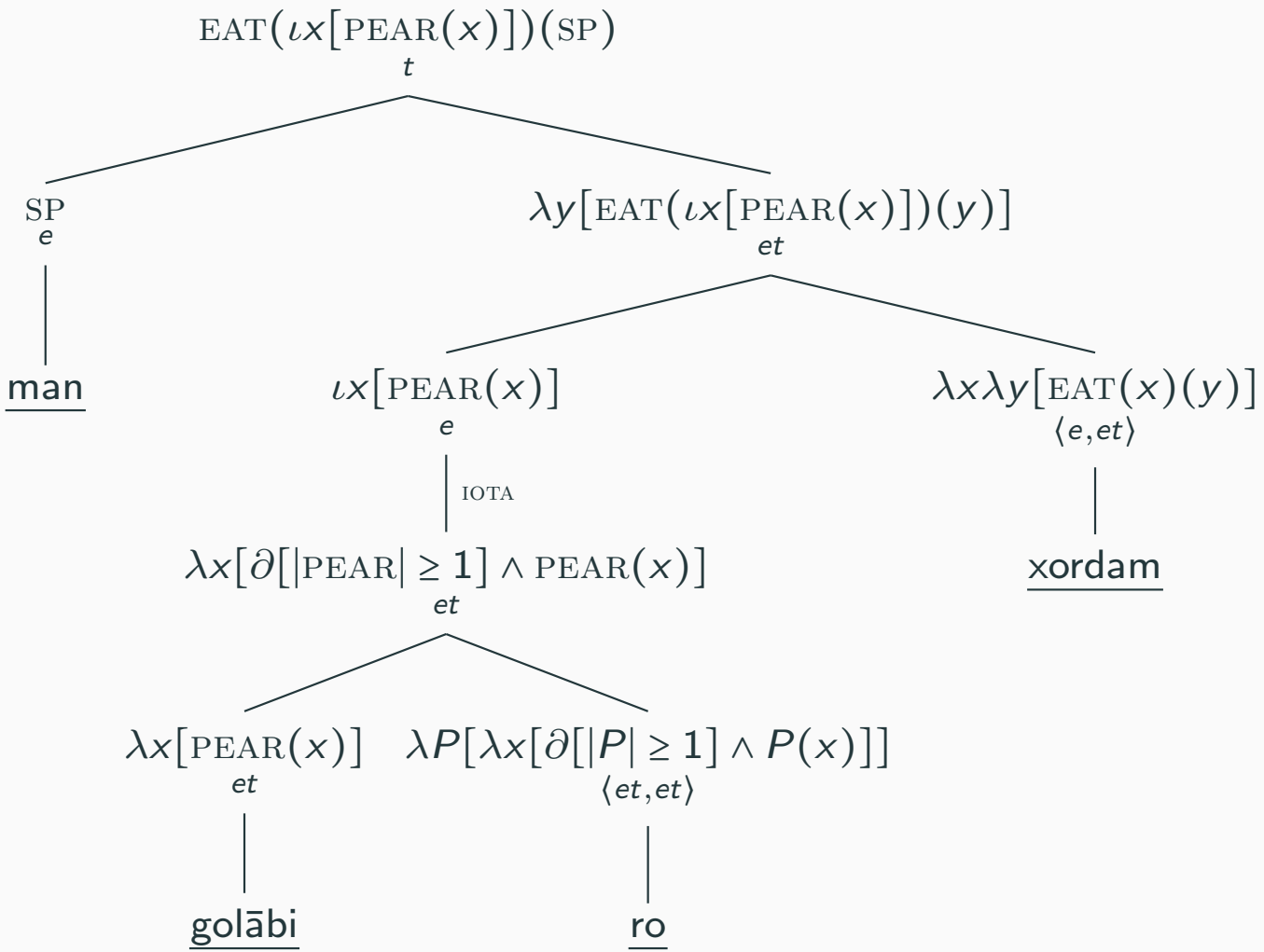
To-Do's!

- ~~Define some semantic primitives: EXISTENCE, UNIQUENESS, and COMMON GROUND.~~
- ~~Define specific, definite, and existentially presupposed using the primitives.~~
- ~~Map the hypothesis space.~~
- ~~Show the problems with the specificity hypothesis.~~
- ~~Show the problems with the definiteness hypothesis.~~
- ~~Provide more data for the presuppositional hypothesis.~~
- Provide a compositional account of definites and simple indefinites.

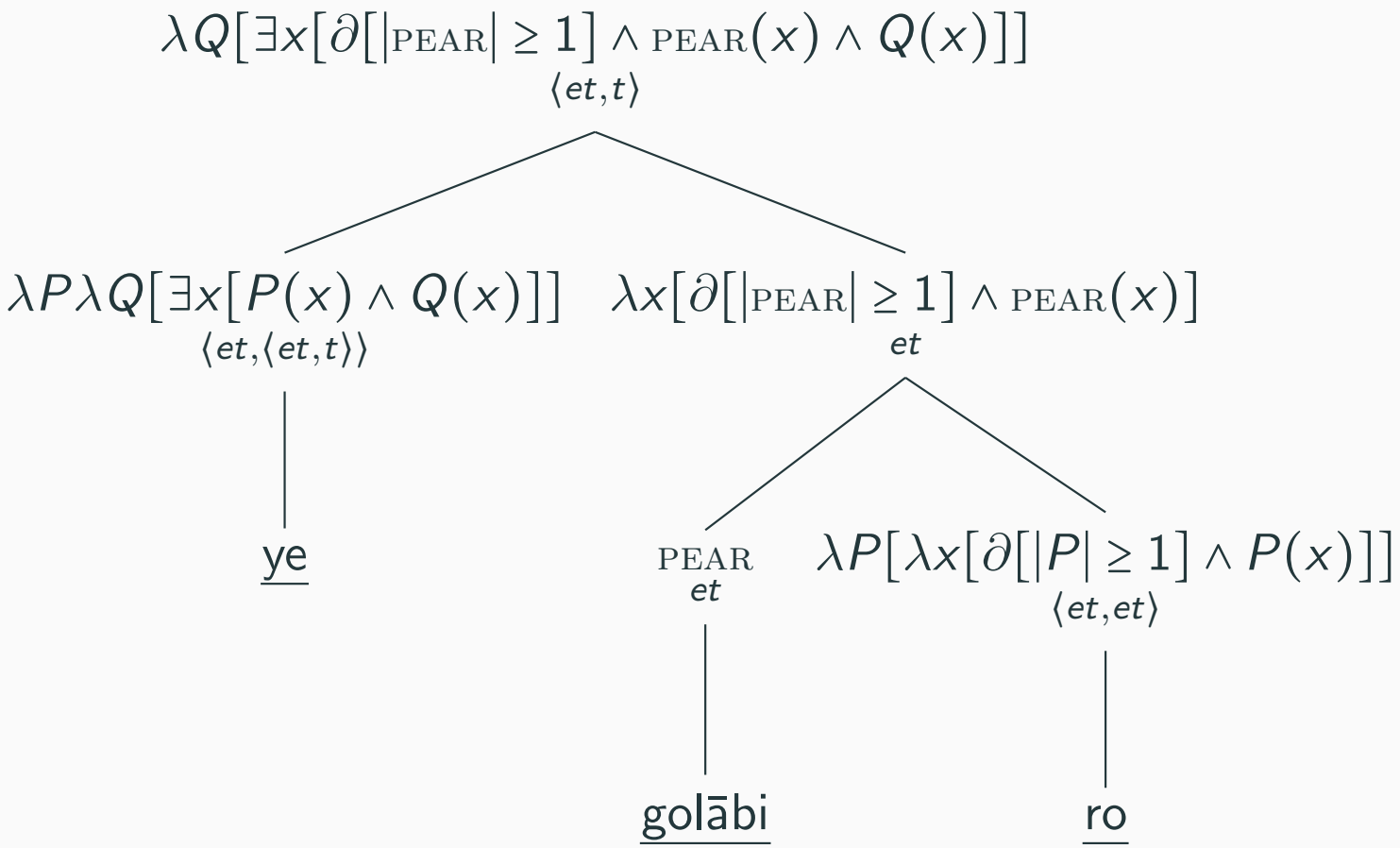
Lexical Entry for Rā

$$\underline{\text{rā}} \rightsquigarrow \lambda P[\lambda x[\partial[|P| \geq 1] \wedge P(x)]]$$

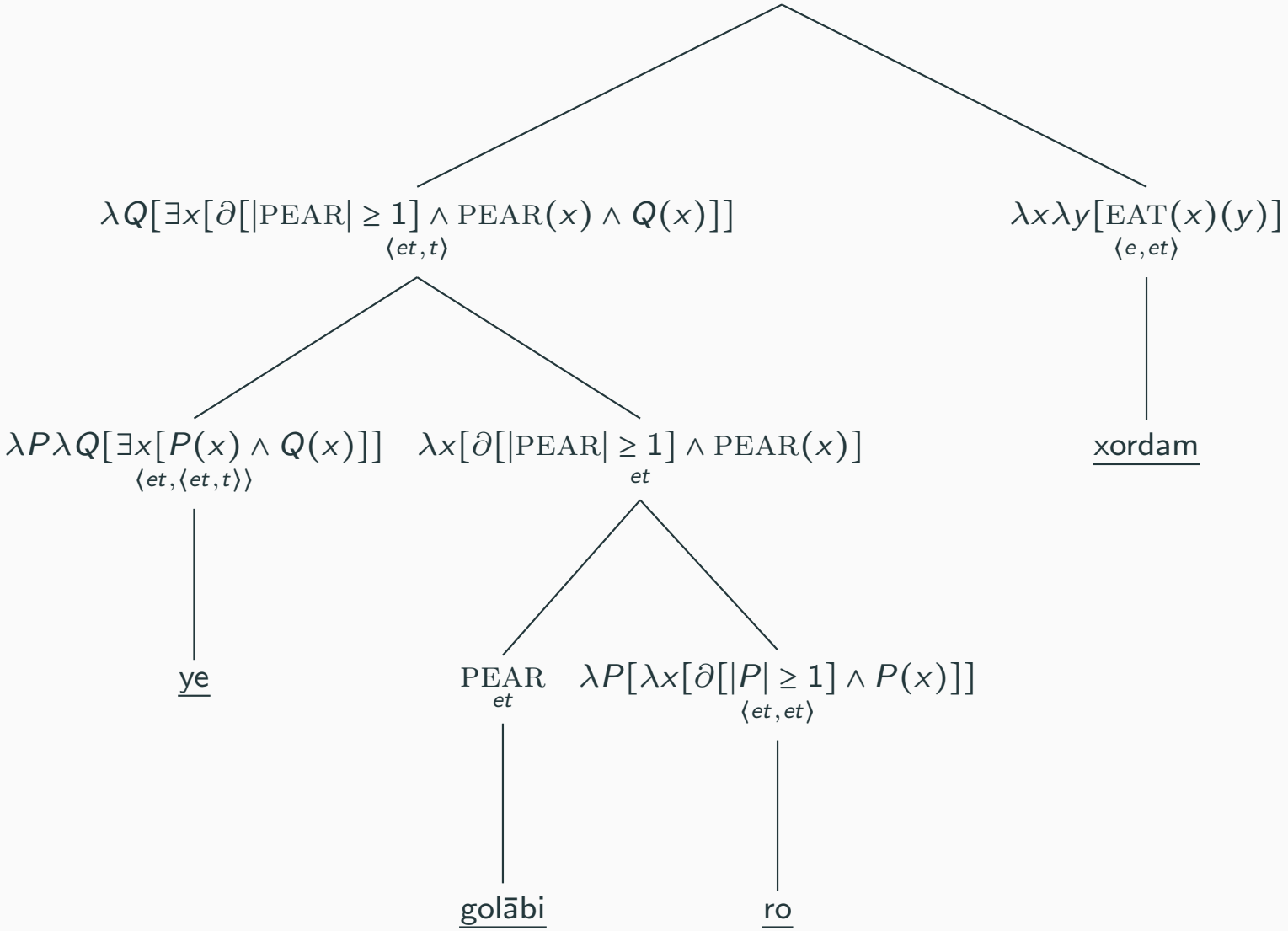
Deriving a Definite



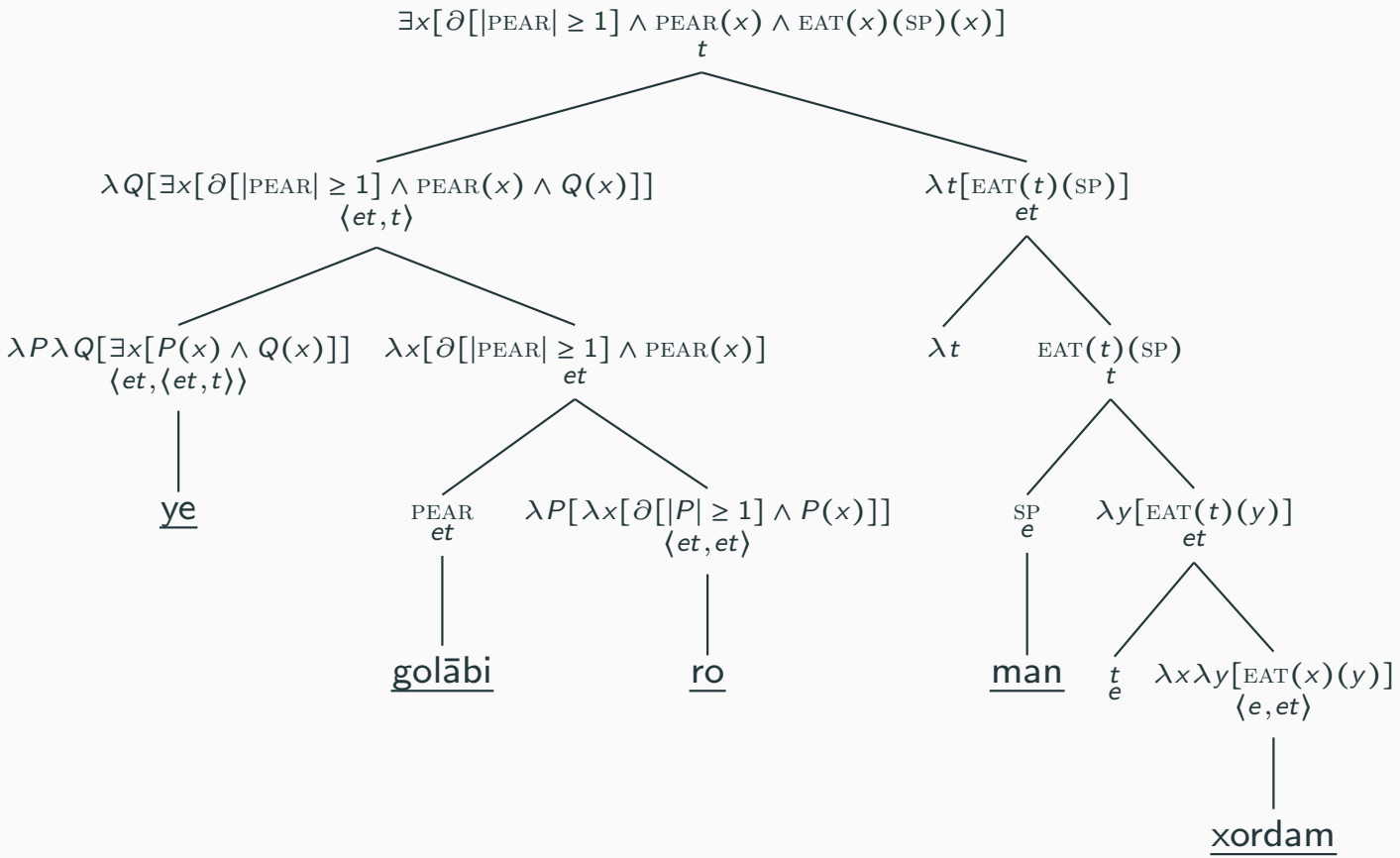
Deriving a Rā-marked Indefinite



Deriving a Rā-marked Indefinite



Deriving a Rā-marked Indefinite



Conclusion

Conclusion

- The semantic contribution of rā is best described as an existential presupposition.
- To avoid confusion, it might be better to not use the term "specificity" for rā.
- Rā's existence presupposition provides half of definiteness.
- The other half is provided by the absence of indefinite marking.
- Rā's existence presupposition is compatible with indefinites.

Thank You!

- Special thanks to:
  - Cleo Condoravdi for continued help and support with this project.
  - James Collins, Paul Kiparsky, Eve Clark, and Chris Potts.

NP or DP?

Example

(16) a. ye mard-o yā zan-o barā in kār moarefi kon-id
ID man-OM or woman-OM for this job introduce do-2.PL
"Introduce a man or a woman for this job."

References

Dabir-Moghaddam, M. (1992). On the (in) dependence of syntax and pragmatics: Evidence from the postposition-ra in persian. In Cooperating with Written Texts: The Pragmatics and Comprehension of Written Texts, pages 549–574. Mouton de Gruyter.

Dalrymple, M. and Nikolaeva, I. (2011). Objects and information structure, volume 131. Cambridge University Press.

Enc, M. (1991). The semantics of specificity. Linguistic Inquiry, 22(1):pp. 1–25.

Farkas, D. F. (1994). Specificity and scope. In L. Nash and G. Tsoulas (eds), Langues et Grammaire 1. Citeseer.

Fodor, J. D. and Sag, I. A. (1982). Referential and quantificational indefinites. Linguistics and philosophy, 5(3):355–398.

Ghomeshi, J. (1996). PROJECTION AND INFLECTION: A STUDY OF PERSIAN PHRASE STRUCTURE. PhD thesis, University of Toronto.