

Minimal pronouns & T-Agreement effects: the case of Farsi Fake Indexicals

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Farsi Fake Indexicals

Rodica Ivan &
Zahra Mirrazi

The Farsi Data

Typology



Rodica says ‘Hi!’

PUZZLE

Context: Bad Parenting

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Imagine we all have children. Also imagine that the speaker (Zahra) is of the opinion that she is the world's greatest parent and that no one else is a good parent. According to the speaker, no one in the group takes care of their own children except for her.

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- (1) mæn tænhæ kæs-i hæst-æm ...
I only person-RM be-1SG
‘I am the only one...’

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1st Agr **1st Pro** ✓ **Bound Variable**

‘... who am taking care of my child.’

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3rd Agr **3rd Pro** ✓ **Bound Variable**

‘... who is taking care of their child.’

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- non-predicative matrix clauses teach us that a **direct dependency** between the matrix subject and the indexical is possible in Farsi
- this direct dependency is modulated by **Rule H (Fox, 1998)**

Overview

- ➊ Setting the Stage
- ➋ The Farsi Data
- ➌ Proposal
- ➍ Typology
- ➎ Interim Summary
- ➏ Non-predicative Matrix Clauses
- ➐ Summary

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→ $\llbracket I \rrbracket^{g,c}$ = the speaker in C

→ $\llbracket you \rrbracket^{g,c}$ = the addressee in C

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(3) *I am the only one who can take care of **my** children.*

adapted from Partee (1989)

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1st and 2nd person pronouns **can** have bound variable readings.

(MAIN) ACCOUNTS

- **Semantic:** bound variable readings via **focus-alternatives**
Sauerland (2013), Bassi & Longenbaugh (2018), Bassi (2018)
- **Syntactic:** syntactically bound **minimal pronouns**
Kratzer (1998), von Stechow (2004), Heim (2008), Kratzer (2009), Wurmbrand (2017)

SEMANTIC ACCOUNTS: CORE IDEA

- ▶ 1st and 2nd person pronouns are **real indexicals** with semantically contentful ϕ -features.

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- ▶ The ϕ -features get deleted in **Focus Alternatives**.

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The rest is up to debate ...

(4) KRATZER (2009) VS. WURMBRAND (2017)

	Kratzer (2009)	Wurmbrand (2017)
AGREE type	bottom-up, phase-based AGREE	top-down, Reverse AGREE
π features	embedded v with π features	matrix subject
irrelevant	features in matrix clause	AGREE for embedded v / T

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I only person-RM be-1SG
‘I am the only one...’

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- (6) mæn tænhə kæs-i hæst-æm ...
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GENERALIZATION

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- ▶ In Farsi, the **embedded verb** of the relative clause containing a fake indexical can show either **3rd or 1st** person agreement.
- ▶ The **bound variable** reading is only available when the embedded T and the relative pronoun **match** in ϕ -features.

HOW FARSI IS PROBLEMATIC:

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► Focus-alternative accounts cannot distinguish between (8a) & (8b).

► Wurmbrand (2017) assumes T (and *v*) agreement in the embedded clause is irrelevant. (8b) should have a bound variable reading.

TAKEAWAY

- ▶ **embedded T agreement** does play a role in the availability of bound variable readings (contra Wurmbrand, 2017).

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- ▶ **embedded T agreement** does play a role in the availability of bound variable readings (contra Wurmbrand, 2017).
- ▶ A **purely semantic account** of fake indexicals is **not sufficient** for Farsi: syntactic agreement matters.

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- the matrix subject should be involved in a **top-down** feature transmission of π features. (in favor of Wurmbrand, 2017)

AGREEMENT PATTERNS

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(9) PREDICATIVE MATRIX PATTERN

AGR.	PRO.	BOUND VARIABLE
3	3	✓
3	1	*
1	1	✓
1	3	*

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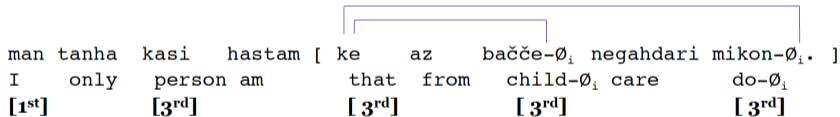
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Derivation for Predicative Matrix 3rd Agr 3rd Pro

(All Languages)

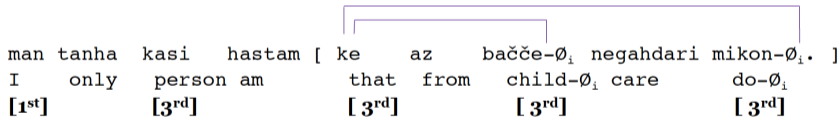
STEP 1: The **embedded T probe** and the **minimal pronoun** enter an AGREE relation with *who*.



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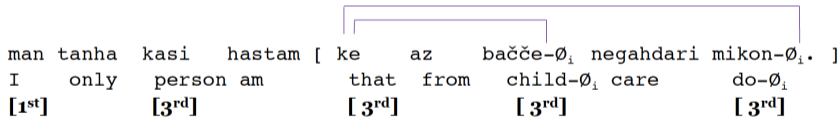
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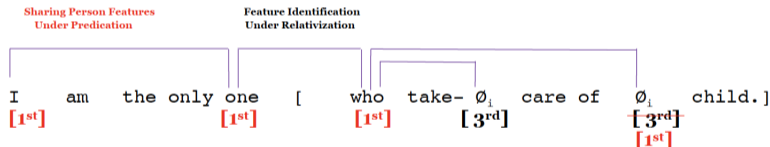
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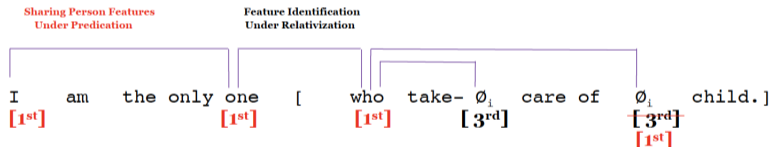
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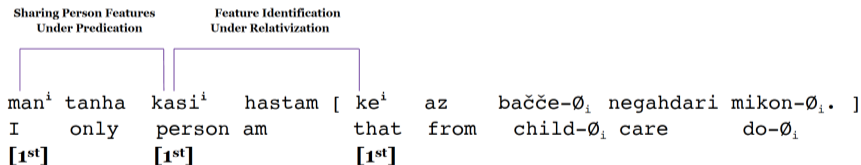
- No Sharing of Person Features under Predication.
- **3rd Agr** **3rd Pro**

Derivation for Predicative Matrix (*Farsi*)

1st Agr

1st Pro

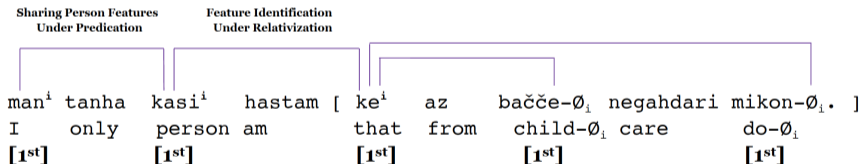
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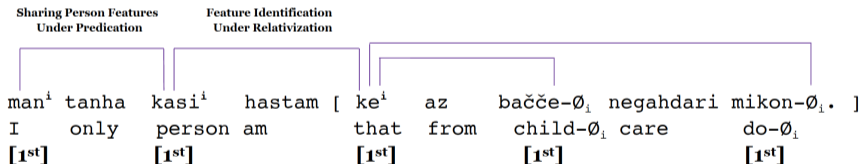
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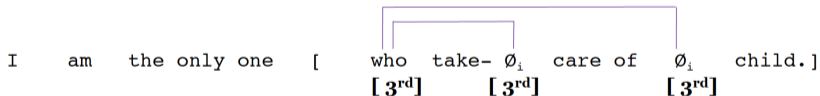
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► **1st Agr****1st Pro**

Derivation for Predicative Matrix (English) 3rd Agr 1st Pro

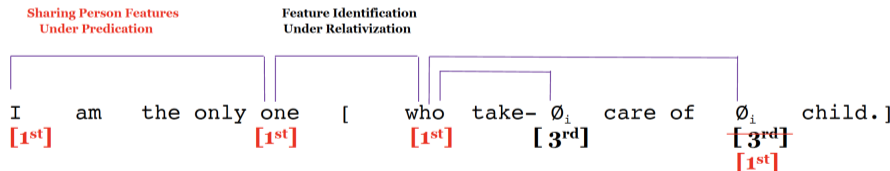
STEP 1: The **embedded T probe** and the **minimal pronoun** enter an **AGREE** relation with *who*.



Derivation for Predicative Matrix 3rd Agr 1st Pro

(English)

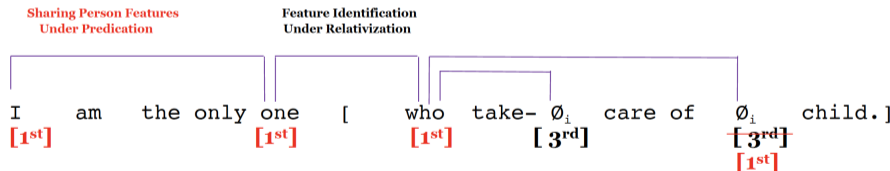
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► T Agreement happens **in syntax**. → 3rd Agr

Derivation for Predicative Matrix 3rd Agr 1st Pro

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- ▶ T Agreement happens **in syntax**. → 3rd Agr
- ▶ 3rd is the absence of person features.
- ▶ The features of \emptyset_i are determined **post-syntactically**. → 1st Pro

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PREDICATIVE MATRIX PATTERNS

(10) *The data so far...* (embedded T & \emptyset_i Agreement)

	3 RD 3 RD	3 RD 1 ST	1 ST 1 ST	1 ST 3 RD
GERMAN(SG.)	✓	*	*	*
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► Typological gap?

CROSS-LINGUISTIC QUICK FIXES

FARSI

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- ▶ **Sharing Person Features under predication** is optional.

CROSS-LINGUISTIC QUICK FIXES

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- ▶ Icelandic (Wurmbrand, 2017) & Greek (Itai Bassi, p.c.) also pattern with Farsi

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- ▶ Hebrew (Itai Bassi, p.c.) patterns with Romanian

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- ▶ **3rd Pro** can only be attested when there is no sharing of person features under predication
- ▶ Our account predicts that this language should not exist.

CROSS-LINGUISTIC QUICK FIXES

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- ▶ a language in which **1st Agr 3rd Pro** is allowed.
- ▶ **1st Agr** can only be attested when sharing of person features under predication has happened in the **syntax**.
- ▶ **3rd Pro** can only be attested when there is no sharing of person features under predication
- ▶ Our account predicts that this language should not exist.
- ▶ However, Itai Bassi (p.c.) has data from French which also allows **this pattern** (unlike our French informants)

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Non-predicative Matrix Clauses

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3rd Agr

1st Pro

✓ Bound Variable

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TAKEAWAY

Matrix predication affects the agreement patterns in the relative clause.

AGREEMENT PATTERNS

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(12) NON-PREDICATIVE MATRIX PATTERN

AGR.	PRO.	BOUND VARIABLE
3	3	*
3	1	✓
1	1	*
1	3	*

WHAT WE'VE LEARNED:

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WHAT WE'VE LEARNED:

- ▶ non-predicative matrix: only the **3rd Agr 1st Pro** pattern yields bound variable readings

CONCLUSIONS:

- ▶ the matrix subject can **bind the pronoun directly** for non-predicative matrix clauses
- ▶ if this direct dependency were always available, then **3rd Agr 1st Pro** wouldn't be starred for predicative matrix clauses

OUR ASSUMPTIONS:

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OUR ASSUMPTIONS:

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- ▶ **Rule H*** (Fox, 1998): when local binding and non-local binding yield the same interpretation, non-local binding is blocked.

* This is inspired by Wurmbrand (2017) who uses a morphological version of Rule H. We argue the regular Rule H can capture the data.

Derivation for Non-Predicative Matrix

Derivation for Non-Predicative Matrix

STEP 1: There is no predication, so feature identification between the subject and the relative pronoun does not take place.

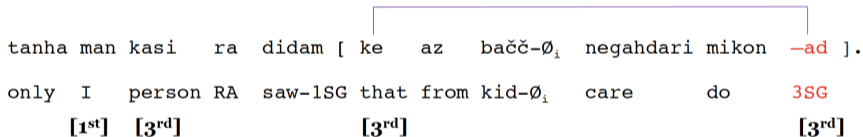
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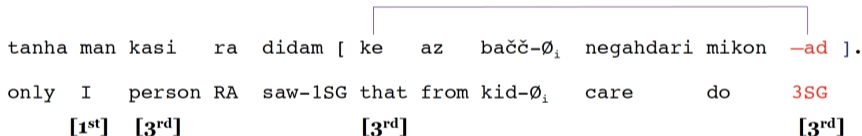
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Derivation for Non-Predicative Matrix

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When the features get valued, only [3rd] is available.



► **only 3rd** person embedded T agreement is possible

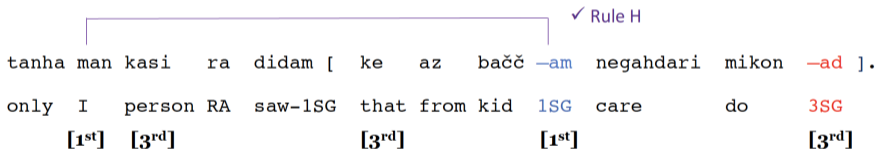
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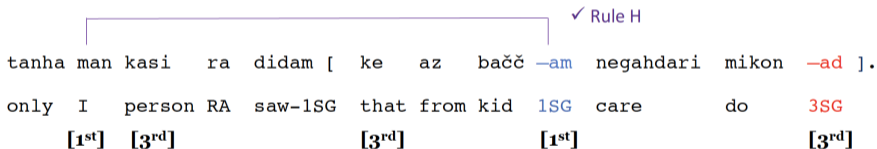
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Derivation for Non-Predicative Matrix

STEP 3: The direct dependency between the matrix subject and the indexical is no longer ruled out by Rule H.



► the indexical can be directly bound by the subject

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SUMMARY:

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- ▶ **embedded T agreement** does play a role in the availability of bound variable readings (contra Wurmbrand, 2017)
- ▶ **Sharing of Person Features under predication** is *optional*.
- ▶ Languages differ in **Timing of Sharing of Person Features under predication**.
- ▶ a **direct dependency** between the matrix subject and the minimal pronoun is regulated by **Rule H (Fox, 1989)** (like Wurmbrand, 2017; but no need for H_{PF})

Acknowledgements

We are more than grateful to Rajesh Bhatt, Seth Cable, Vincent Homer, Kyle Johnson, Angelika Kratzer, Barbara Partee, four anonymous reviewers, Itai Bassi, as well as the audiences of the UMass Amherst Semantics Workshop and Syntax Workshop, Kyle Johnson's Spring 2018 Topics in Syntax seminar (Ling 752), Rajesh Bhatt & Ellen Woolford's Spring 2019 Topics in Syntax seminar (Ling 752) at UMass Amherst, TripleA 5 in Konstanz (June 2018) and LSA 93 in New York (January 2019) for all their helpful feedback, comments, data and encouragement.

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OG Accounts

KRATZER (2009): **Assumptions**

- minimal pronouns are born **featureless** \emptyset_i
- they acquire their features via **binding**
(from functional heads with λ -operators)
- **Important:** v and C can be merged with valued ϕ -features
(to preserve local phase-based spellout)
- v and C alter the spell-out form of \emptyset_i
via FEATURE TRANSMISSION UNDER BINDING
- binding relations determined in **relative clause**
(phase-based agreement, bottom-up)
- via unification rules, **the relative pronoun, T, v and the indexical**
end up **specified for all features** involved in the various feature dependencies.

KRATZER (2009): **Ingredients**

(13) FEATURE TRANSMISSION UNDER BINDING

The ϕ -feature set of a bound DP **unifies** with the ϕ -feature set of the verbal functional head that hosts its binder.

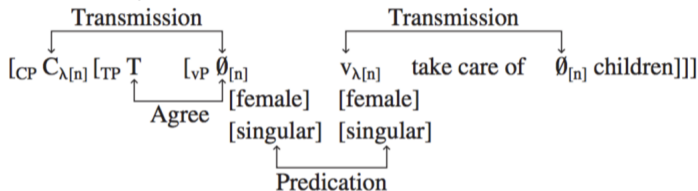
(14) SPECIFIER-HEAD AGREEMENT UNDER BINDING

When a DP occupies the specifier position of a head that carries a λ -operator, their ϕ -feature sets **unify**.

(15) FEATURE COMPATIBILITY

Bound variable readings are only obtained when the possessive pronoun and the closest verb have **compatible ϕ -features** (before-spell out).

(16) I am the only one who takes care of her children.



STEP 0: v & C enter derivation with relevant features

STEP 1: v & the possessive enter FEATURE TRANSMISSION

STEP 2: *predication* (spec-head agr.) between subject DP and v

STEP 3: subject DP AGREES with T

STEP 4: subject DP and C enter FEATURE TRANSMISSION

WURMBRAND (2017): **Observation**

Kratzer (2009) proposes that the embedded little *v* comes with 1st person features. This wrongly predicts that there should be no difference between (10a) and (10b).

- (17) a. I am the only one [who has done my/her best]. ✓ **BVar**
 b. The only one [who has done *my/her best] is me. ***BVar**

Conclusion:

- *v* does not come equipped with 1st person features
- the derivation is not bottom-up.

WURMBRAND (2017): **Assumptions**

- the AGREE relations with T and ν are **irrelevant**.
- A **direct dependency** between the antecedent and the overt indexical pronoun is needed.
- A locality condition reminiscent of Rule H (Heim 1993, Fox 1998) favoring feature sharing with the closest relevant antecedent.
- Certain (markedness inspired) morphological feature co-occurrence restrictions.

WURMBRAND (2017): **Ingredients**

- The semantic dependencies in the targeted sentences are **predication**, **relativization**, and **binding**.
- Any feature sharing relation triggered by these dependencies has to obey Rule H_{PF} , which requires sharing with the closest antecedent.

(18) RULE H_{PF} :

A variable x cannot Agree with an antecedent α , in cases where a **more local antecedent** β could Agree with x and share morphosyntactic features with x .

\approx typical locality restriction

