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

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I. SUMMARY. We discuss data from Farsi which cannot be accounted for by previous semantic or syntactic proposals for fake indexicals (Kratzer, 2009; Wurmbrand, 2017; Bassi, 2018, a.o.). Our novel empirical observation regarding predicative and non-predicative matrix clauses and their embedded Tense agreement patterns for bound variable readings presents evidence in favor of a syntactic approach that employs minimal pronouns. We propose feature identification between the matrix and embedded subjects is at play *only* for predicative sentences, and that a direct dependency between the matrix subject and the minimal pronoun is regulated by Rule H.

II. BACKGROUND. Intensionally rigid designators (Kaplan 1989) like 1st and 2nd person pronouns can have bound variable readings as shown below.

(1) *I am the only one around here who can take care of **my** children.*   Partee (1989)
    a. REFERENTIAL: *No one else can take care of **my** children.*
    b. BOUND VARIABLE: *No one else can take care of **their** children.*

Accounts like Bassi & Longenbaugh (2017) and Bassi (2018) derive bound variable readings of fake indexicals through focus-alternative semantics. On the other hand, both main syntactic accounts, Kratzer (2009) and Wurmbrand (2017), employ minimal pronouns and language-specific spell-out restrictions. Here is how these accounts overgenerate:

Kratzer (2009) proposes that the embedded little *v* comes with 1st person features, and that bound variable readings are generated within the relative clause (matrix clause structure and features are irrelevant). This wrongly predicts that there should be no difference between (2a, 2b) and (3a, 3b). However, only (2a) and (3a) have bound variable (BVar) readings. We take this as evidence that the features in the matrix clause **are** relevant and that the matrix subject should be involved in a **top-down** feature transmission of π features (person features).

(2) a. <u>I am</u> the only one who has done my/her best.   ✓ **BVar** PREDICATIVE, 1SUBJ
    b. The only one who has done *my/her best <u>is me</u>.   ***BVar** PREDICATIVE, 3SUBJ
(3) a. I <u>am</u> the only one who takes care of my children.   ✓ **BVar** PREDICATIVE, 1SUBJ
    b. I <u>met</u> the only one who takes care of my children.   ***BVar** NON- PREDICATIVE, 1SUBJ

Wurmbrand (2017) argues that T (and *v*) agreement in the embedded clause is irrelevant. This approach would wrongly predict (4d) in Farsi to have a bound variable reading. This is also an issue for focus-alternative accounts, which cannot distinguish between (4a) and (4d): both of these utterances are predicted to get bound variable readings. We take these unmet predictions and claims as evidence that **T agreement** does play a role in the availability of bound variable readings. Furthermore, we argue that a purely semantic account of fake indexicals is not sufficient for Farsi: syntactic agreement and bound variable readings are correlated.

III. THE FARSI DATA. In Farsi, for predicative matrix clauses, the embedded verb can show either 3rd or 1st person agreement, as in (4). The bound variable reading is unavailable when there is a feature mismatch between the verbal agreement and the pronoun in the relative clause.

(4) PREDICATION IN MATRIX CLAUSE
    a. mæn tænha kæs-i   hæst-æm ke æz   bačč-**æm** negæhdari mi-kon-**æm**
       I   only person-RM be-1SG   that from kid-1SG care   IMPERF-do-1SG
                                                        1st Agr   1st Pro   ✓ Bound Variable
    b. mæn tænha kæs-i   hæst-æm ke æz   bačč-**æš** negæhdari mi-kon-**æd**
       I   only person-RM be-1SG   that from kid-3SG care   IMPERF-do-3SG
                                                        3rd Agr   3rd Pro   ✓ Bound Variable
    c. mæn tænha kæs-i   hæst-æm ke æz   bačč-<u>æš</u> negæhdari mi-kon-<u>æm</u>
       I   only person-RM be-1SG   that from kid-3SG care   IMPERF-do-1SG
                                                        1st Agr   3rd Pro   * Bound Variable

d. mæn tænha kæs-i   hæst-æm ke   æz   bačč-<u>æm</u> negæhdari mi-kon-<u>æd</u>
    I   only   person-RM be-1SG   that from kid-1SG   care   IMPERF-do-3SG

<div align="right">3rd Agr   1st Pro   * Bound Variable</div>

'I am the only one who takes care of a/b.their child c. someone's child d.speaker's child.'

The current accounts in the literature (Kratzer, 2009; Wurmbrand, 2017; Bassi, 2018; a.o.) cannot predict the dichotomy between (4d) and (5). When the main clause is <u>not predicative</u>, <u>1st T agreement is not possible</u>, and BVar readings are available with 3rd embedded agreement.

(5) NON-PREDICATIVE MATRIX

    tænha man kæs-i   ke   æz   bačč-<u>æm</u> negæhdari mi-kon-<u>æd</u>   ra did-æm
    only   I   person-RM that from kid-1SG   care   IIMPERF-do-3SG RA saw-1SG

'(Only) I met the/a person who takes care of my children.'

<div align="right">1st Agr   3rd Pro   ✓ Bound Variable</div>

IV. PROPOSAL. The observation that predicative and non-predicative matrix clauses yield different T-agreement patterns in the embedded clause provides evidence that feature identification with the matrix DP is at play only for predicative sentences, and that a direct dependency between the matrix DP and the embedded subject is only possible in non-predicative sentences. We assume the following: 1. **Feature Identification under Predication** (Cable, 2005): the subject and the predicate DP share features. 2. **Feature Identification under Relativization** (Cable, 2005): the relative operator and the modified NP share features. 3. A **direct dependency** between the matrix subject and the indexical is possible. 4. **Rule H** (Fox, 1998): when local binding and non-local binding yield the same interpretation, non-local binding is blocked. 5. Language-specific **spell-out restrictions**. (Kratzer, 2009; Wurmbrand, 2017)

(6) DERIVATION FOR PREDICATIVE MATRIX

STEP 1: **Feature Identification** between the matrix DP, the predicate DP and the relative head.

```
I^i am the only one^i [ who^i takes care of ∅_i children. ]
[1ˢᵗ]        [1ˢᵗ, 3ʳᵈ]      [1ˢᵗ, 3ʳᵈ]
```
<div align="right">→ [1st, 3rd] features on <i>who</i></div>

STEP 2: The **embedded T probe** enters an AGREE relation with *who*, getting both [1st] and [3rd].

```
I^i am the only one^i [ who^i takes care of ∅_i children. ]
[1ˢᵗ]        [1ˢᵗ, 3ʳᵈ]      [1ˢᵗ, 3ʳᵈ] [1ˢᵗ, 3ʳᵈ]
```
<div align="right">→ [1st, 3rd] features on T</div>

STEP 3: **Rule H** prohibits $∅_i$ from being directly bound by the matrix subject.

```
I^i am the only one^i [ who^i takes care of ∅_i children. ]  RULE H
[1ˢᵗ]        [1ˢᵗ, 3ʳᵈ]      [1ˢᵗ, 3ʳᵈ] [1ˢᵗ, 3ʳᵈ]      [1ˢᵗ, 3ʳᵈ]
```
<div align="right">→ [1st, 3rd] features on $∅_i$ (not just [1st])</div>

STEP 4: : **Spell-out restriction in Farsi**.

(7) BE CONSISTENT!

    For a given vP, if the T and embedded pronoun AGREE with the same DP, pronounce the same ϕ-features on both Agr heads.   → *only 1st T-Agr 1st Pro OR 3rd T-Agr 3rd Pro*

For non-predicative matrix clauses, feature identification with the matrix DP does not take place, hence *who* is only 3rd person and only 3rd person embedded T agreement is possible. Furthermore, the direct dependency between the matrix subject and the indexical is no longer ruled out by Rule H. This allows for sentences like (5) to get a bound variable reading.

V. TYPOLOGY. Our system is consistent with the current typological facts: we derive the four different patterns (see table) via the timing of Rule H and language-specific spell-out restrictions. These restrictions also allow for a typological gap: there **could** be a language where bound variable readings are available for the 1st embedded T-Agr 3rd pronoun pattern.

TYPOLOGY (embedded T & $∅_i$ Agreement)	3ᴿᴰ 3ᴿᴰ	3ᴿᴰ 1ˢᵗ	1ˢᵗ 1ˢᵗ	1ˢᵗ 3ᴿᴰ
GERMAN (SG.)	✓	*	*	*
ENGLISH, DUTCH	✓	✓	*	*
FARSI, GERMAN (PL.)	✓	*	✓	*
ROMANIAN, FRENCH	✓	✓	✓	*