Farsi Fake Indexicals:
Reconciling Kratzer (2009) & Wurmbrand (2017)

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Spiel in a Nutshell

We discuss novel **Farsi** data concerning **fake indexicals** which cannot be accounted for by previous proposals (Kratzer, 2009; Wurmbrand, 2017). Based on the **agreement patterns** in the embedded clause, we argue that **feature unification** takes place only when predication occurs in the matrix clause. A **direct dependency** between the matrix subject and the embedded pronoun is possible only in non-predicative sentences, when **Rule H** (Fox, 1998) is not violated.

The Semantics of Fake Indexicals

RIGID DESIGNATORS

1st and 2nd person pronouns are context-dependent, intensionally rigid designators (Kaplan, 1989). Indexical pronouns should not be affected by logical operators (FIXITY THESIS – Schlenker, 2005).

~ $[[I]]^{g, c}$ = the speaker in C, $[[you]]^{g, c}$ = the addressee in C

FAKE INDEXICALS

1st and 2nd person pronouns **can** have bound variable readings (Partee, 1989)

→ 1st isn't always the speaker

```
(1) I am the only one around here [ who can take care of my children ].
```

REFERENTIAL READING	BOUND VARIABLE READING
*No one else can take care of **my** children.*	*No one else can take care of **their** children.*

MINIMAL PRONOUNS

The LFs for bound variable readings employ **minimal pronouns** $\emptyset_i$ (Kratzer 2009), which obtain their features in the derivation via syntactic dependencies. The direct source of these features is up to debate.

Kratzer (2009) vs. Wurmbrand (2017)

The two main approaches concerning fake indexicals present conflicting views on how bound variable readings are derived and how the minimal pronouns obtain their $1^{st}/2^{nd}$ person features.

KRATZER (2009)	WURMBRAND (2017)
◆ $\emptyset_i$ - fake indexical as minimal pronoun	◆ $\emptyset_i$ - fake indexical as minimal pronoun
◆ bottom-up phase-based AGREE	◆ top-down Reverse AGREE
◆ $1^{st}/2^{nd}$ π features on the embedded pronoun obtained from embedded v via local Binding – v enters the derivation with π features	◆ $1^{st}/2^{nd}$ π features on the embedded pronoun obtained via **Binding** – direct dependency with the matrix subject (facilitated by predication in matrix)
◆ features in matrix clause are irrelevant	◆ AGREE for embedded v and T irrelevant
◆ **feature unification** in embedded clause: relative pronoun, C, T, v & embedded pronoun	◆ **no feature unification** in the matrix or in the embedded clause; **predication** relation: matrix DP and predicative DP
◆ language specific spell-out restrictions - markedness assumptions	◆ language specific spell-out restrictions - co-occurrence restrictions

ISSUES FOR KRATZER (2009)

◆ embedded v can come equipped with $1^{st}/2^{nd}$ π features → *my* should be grammatical in (2)

```
(2) The only one who has done *my/her best is me.        *BOUND VARIABLE
```
(Wurmbrand, 2017)

◆ relative clause solely responsible for BV reading → no difference between (3a) & (3b)

```
(3) a. I am the only one who can take care of my children.   √ BOUND Vble
    b. I met the only one who can take care of my children.   * BOUND Vble
```
(Cable, 2005)

TAKEAWAY

The features in the matrix clause **are** relevant. $1^{st}/2^{nd}$ π features cannot be obtained solely from little v. The matrix subject should be involved in a **top-down** feature transmission of π features.

ISSUES FOR WURMBRAND (2017)

◆ in genderless languages, the co-occurrence restrictions (gender & participant features) do not hold → a direct dependency between the matrix subject and embedded pronoun is possible

→ the Farsi equivalent of (1) should be possible; compare to (4b)

◆ embedded T agreement does not play a role.
◆ feature unification between matrix DP, relative head & relative pronoun does not exist
→ 1st person agreement is impossible on the embedded verb

```
(1') I am the only one around here [who *am /is responsible].
```

→ unmet prediction in Farsi – see (4a) (+French, Romanian)

TAKEAWAY

Since matrix agreement and embedded agreement are **not** obligatorily different (contrary to what Wurmbrand (2017) claims), **feature unification** between the matrix DP and the predicative DP should be possible. Co-occurrence restrictions based on gender are not critical to the availability of the direct dependency between the matrix subject and the fake indexical.

Farsi Fake Indexicals

PREDICATION IN MATRIX CLAUSE

◆ In Farsi, the embedded verb can show **either 3rd or 1st person agreement**, as in (4a) - (4d).
◆ The **bound variable reading is unavailable** when there is a **feature mismatch** between the verbal agreement and the pronoun in the relative clause.

```
(4) man tanha kas  -i hast -am  ke …
    I   only person RM be  1SG  that …
    'I am the only person that …'
```

						AGR.	PRO	BOUND VARIABLE
a.	az	bačč **-am**	negahdari	mikon	**-am**	1ST	1ST	✓
	from kid	**1SG** care		IMPF-do	**1S**			
b.	az	bačč **-am**	negahdari	mikon	**-ad**	3RD	1ST	*
	from kid	**1SG** care		IMPF-do	**3SG**			
c.	az	bačč **-aš**	negahdari	mikon	**-ad**	3RD	3RD	✓
	from kid	**3SG** care		IMPF-do	**3SG**			
d.	az	bačč **-aš**	negahdari	mikon	**-am**	1ST	3RD	*
	from kid	3SG care		IMPF-do	1SG			

`…takes care of my/her child'`

NON-PREDICATIVE MATRIX

◆ When there is no predication, 1st person agreement is no longer possible.
◆ **Bound variable readings are** only available with **feature mismatch** (Farsi ≈ English)

```
(5) tanha man kas  -i ke  az   bačč -am negahdari mikon -ad ra didam
    only  I  person RM that from kid 1SG care.   IMPF-do 3SG RA saw-1SG
    '(Only) I met the/a person who takes care of my children.' √ BOUND Vble
```

Accounting for Farsi

OUR ASSUMPTIONS

◆ **Feature Identification under Predication**: the predication of the subject by the DP induces an 'identification' of the subject with the DP (Cable, 2005).
◆ **Feature Identification under Relativization**: modification of an NP by a relative clause induces an 'identification' between the relative clause operator and the NP that the clause modifies (Cable, 2005).
◆ A **direct dependency** between the matrix subject and the indexical is possible (see (5)).
◆ **RULE H** (Fox, 1998): when local binding and non-local binding yield the same interpretation, non-local binding is blocked. (in order to disallow (4b))
◆ Language-specific spell-out restrictions.

PROPOSAL

◆ **Feature identification** between the matrix DP, the DP predicate and the relative head
→ *who* gets both [1st] and [3rd] person features.

```
(6) a.  Iⁱ am the only oneⁱ [ whoⁱ takes care of Øᵢ children. ]
       [1st]        [1st, 3rd]     [1st, 3rd]
```

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

```
(6) b.  Iⁱ am the only oneⁱ [ whoⁱ takes care of Øᵢ children. ]
       [1st]        [1st, 3rd]     [1st, 3rd] [1st, 3rd]
```

◆ The minimal pronoun can agree with *who* or with the matrix subject: either relation would yield the same meaning, due to feature identification (between *I* and *who*). **RULE H** prohibits the $\emptyset_i$ from being directly bound by the matrix subject.

```
(6) c.  Iⁱ am the only oneⁱ [ whoⁱ takes care of Øᵢ children. ]    RULE H
       [1st]        [1st, 3rd]     [1st, 3rd] [1st, 3rd]  [1st, 3rd]
```

◆ Farsi Spell-out Restriction: **BE CONSISTENT!**
If the T head and embedded pronoun of a given vP AGREE with the same DP, pronounce the same φ-feature values on both agreement heads. → ✓ 1st 1st ✓ 3rd 3rd * 1st 3rd * 3rd 1st

◆ For **non-predicative matrix clauses** (like (5)), feature identification between the matrix subject and the relative clause head does not take place, *who* only has 3rd person features. Hence, **only 3rd person embedded verbal agreement is possible.**
◆ The $\emptyset_i$ can agree with *who* or with the matrix subject, the two agreement relations would yield entirely different interpretations. Rule H does not prohibit the direct dependency between *I* and the indexical. → **3rd 1st** is the only subject bound variable pattern available.

Moving Forward: Typology

SUMMARY

◆ Farsi presents novel data → embedded T agreement in BV readings can surface as $1^{st}/2^{nd}$ person
◆ Claim: The matching T agreement is an artefact of feature identification between the matrix subject, the relative clause head and the relative pronoun. (contra Wurmbrand (2017))
◆ The direct dependency between the fake indexical and the matrix subject is possible, but the availability of the agreement is modulated via classical Rule H (not H_{PF} like in Wurmbrand (2017))
◆ AGREE takes place in a top-down fashion (Wurmbrand, 2017; contra Kratzer (2009))
◆ Languages differ in terms of their spell-out restrictions (Kratzer, 2009; Wurmbrand 2017).

TYPOLOGY (embedded T & $\emptyset_i$ Agreement)

	3RD 3RD	3RD 1ST	1ST 1ST	1ST 3RD
GERMAN (SG.)	✓	*	*	*
ENGLISH, DUTCH	✓	✓	*	*
FARSI, GERMAN (PL.)	✓	*	✓	*
ROMANIAN, FRENCH	✓	✓	✓	*

FURTHER QUESTIONS

◆ BV reading not possible with DEM
◆ Is 1st 3rd possible in any language?
◆ Narrow down cross-linguistic spell-out restrictions
◆ Do non-predicative matrix clauses ever give rise to $1^{st}/2^{nd}$ T agreement in embedded clauses?

Selected References

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