Agreement in binominal copular clauses: Movement vs feature-relativized Agree

Susana Bejar and Arsalan Kahnemuyipour
sbejar@chass.utoronto.ca, a.kahnemuyipour@utoronto.ca

1. Introduction

• In copular clauses involving two noun phrases – as in [NP1 *be* NP2] there is variation across languages with respect to which noun phrase controls agreement.

(1)   a.   The murderer is me.   *English*

      b.   assassino   sou eu.   *Portuguese*
              murderer   am   I

      c.   qaatel   man-am   *Persian*
              murderer   I-1sg.

• What is the difference between systems in which NP1 can fail to control agreement, leading to NP2 agreement (e.g. Portuguese, Persian), and those where NP1 controls agreement like a regular subject (e.g. English)? Recent years have seen renewed interest in this question (Heycock 2012; Béjar and Kahnemuyipour 2017; den Dikken 2019; Hartmann and Heycock 2020; Keine, Wagner, and Coon 2019). NP2 agreement is of interest because it challenges standard assumptions about agreement operations. In particular, it **violates the general expectation that clausal agreement should be with the highest accessible goal in a clause (locality).**

• A leading idea in previous research associates NP2 agreement with the syntax of specificational copular clauses which are known to involve inversion. Accordingly, NP1 fails to control agreement, despite its surface superiority, because in the base structure it is NP2 that is superior. Meanwhile, the surface position of NP1 is the result of movement, which has been analyzed in two different ways: Movement to CP and Movement to TP.

> **Movement to CP:** The position of NP1 is the result of A-bar movement to the left periphery (2). NP2 is the structural subject which Agrees with T and moves to Spec,TP. In other words, NP2 agreement is in fact canonical agreement. (Heggie 1988, Partee 1998, Geist 2007, cf. Djärv 2021).

(2)   [CP **NP1**   [TP **NP2** T N̶P̶2̶   N̶P̶1̶]]
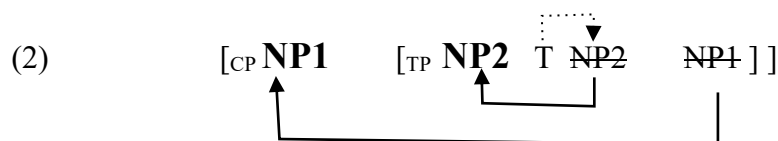
• We will not pursue the Movement to CP (A-bar movement) analysis for NP1 (2) further, as it has been challenged by numerous authors who have argued that NP1 is the structural subject and NP2 is in a VP-internal position regardless of which NP controls agreement. (See Mikkelsen 2005 for Danish, Heycock 2009, 2012 for Faroese, Alsina and Vigo 2014 for Catalan).

Specifically for Persian, Bejar and Kahnemuyipour (2017) argue that NP2 is not in Spec,TP, based on the following evidence:

> -**position of temporal adverbs:** the most natural position for temporal adverbs as after the subject, but they cannot go after NP2
> -**prosody:** in Persian the VP receives primary stress and the subject receives secondary stress (Kahnemuyipour 2009). In all copular clauses, NP2 receives primary stress indicating VP-internal position.
> -**pro drop**: if NP2 were a subject it should be possible for it to be pro, but it cannot be.
> -**VP preposing**: Persian has productive VP-preposing. When applied a specificational copular clause the preposed constituent includes NP2.

• An alternative analysis also takes NP2 agreement to follow from superiority relative to the probe, but accounts for the surface position of NP1 in terms of movement to TP:

> **Movement to TP:** In the base structure, NP2 is structurally higher than NP1 and this is the configuration at the point in the derivation when Agree occurs (Moro 1997, Heycock 2012, Djärv 2020) (3). Meanwhile, there is an inversion operation that places NP1 in the structural subject position.

(3)   [$_{CP}$ [$_{TP}$ **NP1** T   **NP2** ~~NP1~~]]
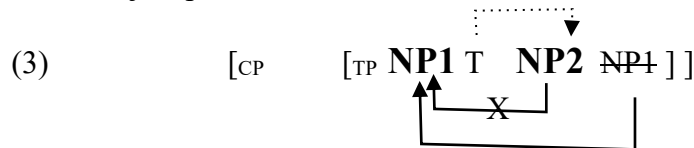
• In (3) the agreement with NP2 is straightforward, however, it is arguably unexpected that NP2 **fails to move** to Spec,TP despite the Agree relation and its structural superiority to NP1. In other words, the approach in (3) dissociates movement from both Agree and superiority.

• We will contrast the **superiority** analysis (3) with an alternative approach (4) where NP1is in fact superior to NP2 relative to the probe, but **fails to Agree** for reasons that relate to feature structures. On this **feature-based** analysis, the size of the inversion step is even smaller than either of the approaches described above, with NP1 landing below T, before raising to TP for EPP purposes. Note that here, movement of NP1 to Spec,TP is straightforward with respect to superiority, though its failure to Agree is arguably unexpected.

• We will argue in favor of the latter view, in this talk. Under this view, there is no dissociation between movement and superiority. There *is* a dissociation between Agree and superiority, but we will suggest a precise implementation of how this works.

(4)   [$_{CP}$ [$_{TP}$ **NP1** T   ~~NP1~~ **NP2** ~~NP1~~]]
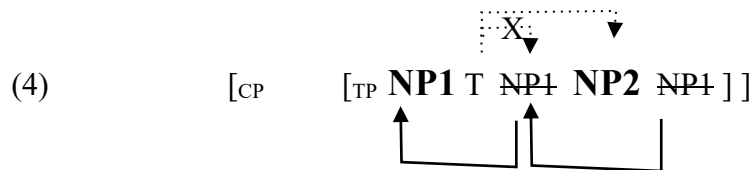
• In the remainder of this talk we will lay out alternatives (3) and (4) in further detail (section 2), then we will give arguments in favor of (4) (section 3), followed by a discussion of consequences

of (4) for NP1 agreement in both monoclausal and biclausal environments (section 4).

2. NP2 agreement: two alternatives

• In this section we lay out the two approaches under comparison, the **superiority approach** and the **feature-based approach** introduced above.

2.1 Superiority account

• In this approach agreement in copular clauses is understood in terms of superiority, specifically the structural positions of NP1 and NP2 relative to the probe.

• Before considering the account in detail, we need to set up some background about the typology of copular clauses, because as noted above, this account identifies the syntax of NP2 agreement with the syntax of a specific type of copular clause (specificational clauses).

A note on copular clause typology

• Since Higgins (1973/2015), it is common to differentiate at least three subtypes of copular clauses: predicational, specificational, and equative (see also Rapoport 1987, Heggie 1988, Moro 1997, Heycock and Kroch 1998, Sharvit 1999, Rothstein 2001, Adger&Ramchand 2003, Mikkelsen 2005, Den Dikken 2006, 2019).

• The examples in (5) illustrate these three major types of copular clauses:

(5)   a. Spiderman is my favourite superhero.   (Predicational)
        b. My favourite superhero is Spiderman.   (Specificational)
        c. Spiderman is Peter Parker.   (Equative)

• One way to understand the classification is in terms of the semantic type of NP1 and NP2 in each copular clause type (e.g. Mikkelsen 2005, following Partee 1986).
        ❖ In (5a) NP1 is a referential noun phrase and NP2 is the predicate.
        ❖ In (5b) NP1 is the predicate and NP2 is referential.
        ❖ In (5c) both NP1 and NP2 are referential.

• The syntax of all three copular clause types is commonly taken to contain a small clause structure in which NP1 and NP2 are introduced. While predicational and equative clauses preserve the underlying order of NP1 and NP2 in their surface syntax (6a), an abundance of work has converged on the idea that specificational clauses must involve an inversion process (6b) (Moro 1997, Mikkelsen 2005, Heycock 2012, Bejar and Kahnemuyipour 2017).

(6) a. canonical order: $[_{TP}$ NP1$_i$ $[T$ ... $[_{SC}$ t$_i$ NP2 $]]]$ (equative, predicational)
     b. inverted order: $[_{TP}$ NP1$_i$ $[T$ ... $[_{SC}$ NP2 t$_i$ $]]]$ (specificational)

• In the **superiority** account, NP2 agreement is specifically tied to the syntax of specificational clauses, in particular, the inversion process (Heycock 2009, 2012, Hartmann & Heycock 2016, 2017, 2020, see also Moro 1997).

  • The closest goal in the search space of the probe always Agrees.
  • When NP2 agreement occurs, this is because NP2 is the closest goal. The inversion places NP1 above T. As a result, NP1 is never a viable goal (7).

(7) NP2 agreement (Superiority account)

$$\text{NP1} \quad \underset{\textit{Agree}}{\overline{\text{T}_{\text{AGR}} \quad ... \quad }}^{\checkmark} \quad [_{\text{small clause}} \; \text{NP2} \; ... \; \text{t}_{\text{NP1}} \;]$$
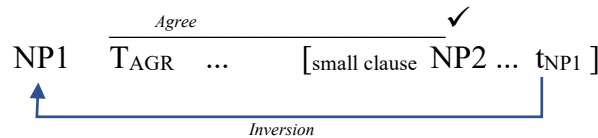
Inversion

  • When NP1 agreement occurs, this is because the inversion step is smaller (below T) and NP1 is the closet goal at the point in the derivation when Agree takes place (8).
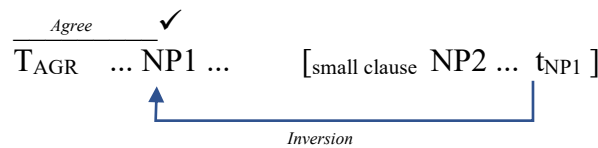
(8) NP1 agreement (Superiority account)

$$\underset{\textit{Agree}}{\overline{\text{T}_{\text{AGR}}}}^{\checkmark} \quad ... \; \text{NP1} \; ... \qquad [_{\text{small clause}} \; \text{NP2} \; ... \; \text{t}_{\text{NP1}} \;]$$

Inversion

2.2 Feature-based account

• In this approach, inversion is always below T and as result NP1 is consistently superior to NP2 at the point in the derivation when Agree occurs. The choice of NP1 agreement vs NP2 agreement is understood in terms of the feature structure of the probe and its matching goals. In some environments, NP1 has a deficient feature structure and therefore fails to Agree despite superiority.

• We assume a privative feature inventory along the lines of (9), which builds on Heidi and Ritter (2002).

(9)	3rd person (specificational subj)	3rd person (elsewhere)	2nd person	1st person
	[n]	[n]	[n]	[n]
		[π]	[π]	[π]
			[part]	[part]
				[spkr]

• The probe has an articulated feature structure consisting of an [_n] feature (where [n] is the minimal feature structure for any nominal), and a [_π] feature (where [π] is the minimal feature assigned to referential nominals).

4

• NP2 agreement happens when NP1 has a defective feature structure relative to the probe, as in (10), which schematizes a specificational copular clause. **Here NP1 is defective because specificational subjects are intensional objects** (Romero 2005, Heycock 2012) and as such have an [n] feature but no [π] feature. As a result, the probe sees past NP1 and Agrees with NP2, which minimally has [n] and [π].

(10)

Agree ✓

-------------------- ✗

… AGR … NP1 … [small clause NP2... t_{NP1}]

[_n]   [n]   [n]

[_π]   [π]

                                        ([PART])

                                         ([SPKR])

Inversion

• NP1 agreement happens when NP2 is inaccessible - the details of this are worked out in section 4

3. Why a feature-based account

• We argue that consideration of a broader range of patterns in copular agreement systems favors the feature-based account. Two arguments are presented: (1) Difference in inversion size is not supported by Persian facts (3.1); (2) NP2 agreement is not restricted to specificational contexts, it also occurs in equative clauses (section 3.2).

3.1 Inversion size and Persian

• Fundamental to the superiority approach is the idea that languages differ with respect to the size of the inversion step in specificational clauses. The minimal constituent that contains the inverted structure is TP in NP2 agreement languages (11) (repeated from (8)), whereas it is smaller than TP in NP1 agreement languages (12) (repeated from (7)). In other words, only in NP1 agreement languages is there an intermediate landing site for NP1 en route to spec, TP.

(11) NP2 agreement (Superiority account)

                    Agree   ✓

      NP1 T_{AGR} …   [small clause NP2 … t_{NP1}]

                       Inversion

(12) NP1 agreement (Superiority account)

                   Agree   ✓

      T_{AGR} … NP1 …   [small clause NP2 … t_{NP1}]

                     Inversion

5

• Under this approach, inverted structures must be bigger in NP2 agreement languages than they are in NP1 agreement languages. However, there is evidence from Persian, an NP2 agreement language, that the inverted structure can in fact be smaller than the inverted structure in English, an NP1 agreement language. This can be shown using small clause constructions under 'consider'-type verbs.

• In English, it is well known that specificational clauses are not possible in the small clause complement of verbs like *consider* (13), from which it has been inferred that the structure required for inversion is not available in this context. The unavailability of inversion under *consider* is standardly explained by positing that the complement of *consider* is smaller than the minimal structure required for inversion in (12) (Moro 1997).

(13) *Many consider the winner Bernie Sanders (cf. Many consider Bernie Sanders the winner)

• In Persian, however, the inverted order is grammatical in the complement of a *consider*-type verb (14) (as is the uninverted order).

(14)   xeyliyaa [$_{SC}$ barande-ro   Bernie Sanders]   mi-dun-an
       many   winner-ra   Bernie Sanders   dur-know-3.pl
       "Many consider the winner [to be] Bernie Sanders."

• Assuming that *consider*-type verbs select small clause complements in Persian, like English, the availability of inversion entails that the landing site is not outside of the small clause. This suggests that, if anything, the inverted structure in Persian is smaller than that of English. This is exactly the opposite of what is expected under the inversion account.

• One might object that the small size of the complement of *consider* is not a universal property and that in Persian it is simply big enough to contain the inversion structure. However, even if that were to be the case, it is easy to show that it cannot be as big as TP because:

        o   A TP complement would have to be post-verbal in Persian, unlike (14)
        o   The small clause in (14) does not exhibit the structure of a TP: no verb, no inflection, no tense marking.

• In sum, the landing site for inversion in Persian must be below T, contra the inversion account. Meanwhile, a feature-based account is compatible with the low inversion position as it takes inversion in specificational clauses to be below T across languages (10).

3.2 NP2 Agreement in equative clauses

• In some languages we find NP2 agreement outside of specificational contexts. This is a problem for the superiority approach, which crucially relies on NP2 being superior to NP1. In non-specificational contexts, NP2 is not superior to NP1 as there is no inversion. Meanwhile, as we will see below, the distribution of NP2 agreement shows sensitivity to feature structure, providing further support for the feature-based account.

• So far we have only seen examples of NP2 agreement in specificational clauses, as in (1), where we saw NP2 agreement for Persian and Portuguese. Eastern Armenian, likewise, has NP2 agreement in specificational clauses, as in (15). In the feature-based account (10), the failure of specificational NP1 to Agree is attributed to its defective feature structure as an intensional element.

(15)   martʰaspan-ə du   es
        murderer-SP you be.PRES.2SG
        'The murderer is you.'

• Crucially, in Eastern Armenian (EA), NP2 agreement is also found in equative copular clauses, where NP1 can be fully referential (Bejar and Kahnemuyipour 2017). Here, what we observe is that the choice of NP1 agreement vs NP2 agreement is seemingly determined by a 1/2 ≫ 3 person hierarchy. Agreement is with NP2 only if NP2 is 1st or 2nd person and NP1 is 3rd person (16a,b). If NP1 is 1st or 2nd person, then agreement is with NP1 (16c,d). (For context, imagine these sentences being used in a game of charades where each individual is acting as another person in the game.)

(16) Eastern Armenian (1/2 ≫ 3)

a.   Shadi-n   yes   **ei**/*er   c. Yes Shadi-n   **ei**
        Shadi-sp   I   **be.past.1sg**/ be.past.3sg   I   Shadi-sp   **be.past.1sg**
        'Shadi was me.'   'I was Shadi.'

b.   Lina-n   du   **eir**/*er   d. Du Lina-n   **eir**
        Lina- sp   you   **be.past.2sg**/ be.past.3sg   you Lina-sp   **be.past.2sg**
        'Lina was you.'   'You were Lina.'

• We capture this pattern as a person sensitivity where the probe requires both a person [π] and a [participant] feature, as schematized in (17).

(17)   <u>*Agree*_____</u>   ✓
                 ----------------------------------✘
        …   AGR   …   [small clause NP1   ...   NP2   ]
              [_n]   [n]   [n]
              [_π]   [π]   [π]
              [_PART]   [PART]
                                                           ([SPKR])

• The person-sensitive analysis of Eastern Armenian makes the further prediction that there could be languages that further specified the probe, e.g. adding [speaker] and therefore showing a preference for 1st over 2nd person, while maintaining the preference for participants over 3rd persons. This pattern has been reported for Uzbek (Gribanova 2018), as in (18), and is captured by the addition of a [speaker] feature to the probe in (19).

(18) Uzbek: *Context, masquerade ball*   (1≫2) (Gribanova 2018: (45))

a. Men(-ning) siz   e-kan-(lig-){**im**/*ingiz}-ni   ayt-di
   1sg(-gen)   2sg   cop-kan-(nmlz-){**1sg**/*2sg.poss}-acc   say-3sg.pst
   'He said I was you.'

b. Siz(-ning)   men e-kan-(lig-){**im**/*ingiz}-ni   ayt-di
   2sg(-gen)   1sg cop-kan-(nmlz-){**1sg**/*2sg.poss}-acc say-3sg.pst
   'He said you were me.'

(19)

• At the same time, Uzbek also shows the same pattern as Eastern Armenian with 1st and 2nd person preferred over 3rd person (20) (Gribanova 2018).

(20) Uzbek: *Context, masquerade ball*   (2≫3) (Gribanova 2018: (44))

a. Siz(-ning) Zamira e-kan-(lig-){**ingiz**/*i}-ni   ayt-d-im
   you-GEN Zamira COP-KAN-(NMLZ-){**2SG**/*3SG.POSS}-ACC say-PST-1SG
   'I said that you were Zamira.'

b. Zamira(-ning) siz e-kan-(lig-){**ingiz**/*i}-ni   ayt-d-im.
   Zamira-GEN you COP-KAN-(NMLZ-){**2SG**/*3SG.POSS}-ACC say-PST-1SG
   'I said that Zamira was you.'

• An obvious question is how a 2nd person NP can Agree in (20), given the proposed feature structure for the probe in (19). We posit an operation, **probe reduction**, that prunes the probe when no goal in the accessible search space has the necessary features to Agree (21) (Bejar 2003, Bejar and Kahnemuyipour 2017).

(21) **Probe Reduction:** failure to Agree impoverishes the feature structure of a probe

- Applying probe reduction to the Uzbek 2≫3 data (20), neither NP1 nor NP2 are suitabable goals on the first cycle of Agree (22a). The failure to Agree triggers probe reduction, after which the 3rd person NP1 is still not a suitable goal, but the 2nd person NP2 is (22b).

(22) a.

```
         --------------------------------------------------✖
         -----------------------------------✖
   …     AGR   …      [small clause  NP1      ...   NP2    ]
         [ _n ]                      [ n ]          [ n ]
         [_π]                        [ π]           [ π]
         [_PART]                                    [PART]
         [_SPKR]
```

     b.

```
               Agree                                       ✓
         _____
         -----------------------------------✖
   …     AGR   …      [small clause  NP1      ...   NP2    ]
         [ _n ]                      [ n ]          [ n ]
         [_π]                        [ π]           [ π]
         [_PART]                                    [PART]
         [_SPKR] Probe reduction
```

• We don't discuss it here, but the probe reduction mechanism is also at play in Eastern Armenian in contexts where both NPs are 3rd person (either in an equative where agreement is with NP1, or in a specificational clause where, like Persian, agreement is with NP2).

• We've shown that in Eastern Armenian NP2 agreement depends on a 1/2≫3 person sensitivity and in Uzbek it depends on a 1 ≫ 2 ≫ 3 person sensitivity. These patterns supports a feature-based account of NP2 agreement. Person-sensitive NP2 agreement in non-specificational contexts poses a serious challenge to the superiority approach.

4. NP1 agreement in a feature-based account

• We've seen how NP2 agreement comes about in both specificational and equative environments. We now turn our attention to NP1 agreement.

• To begin, there are cases of NP1 agreement that arise trivially from locality, where NP1 is featurally non-defective and it is simply the closest goal to the probe. This is illustrated for Persian with an equative clause (23) where NP1 is 3rd person and NP2 is 2nd person, with the derivation schematized in (24). (Predicational clauses would be similar.)

(23)   Persian equative (*charades context*)
        Sabah to   bud
        Sabah you was.3sg
        "Sabah was you."

9

(24)

$$\overline{\text{Agree} \hspace{6cm}} \checkmark$$

…	AGR	…	[small clause	NP1	…	NP2	]
	[_n]			[n]		[n]	
	[_π]			[π]		[π]	
						[PART]	

• NP1 agreement can even arise when NP1 is featurally defective relative to the probe, as long as NP2 is equally defective. For example, Eastern Armenian, with a probe specified for both [π] and [PART], nevertheless allows 3rd persons to Agree if there is no 1st or 2nd person NP in the clause (25). As discussed above, we posit **probe reduction** when no suitable goal is available in the search space, as shown in (26). In this case reduction results in agreement with NP1 as the closest suitable goal. NP1 is 3.sg in (25a) and 3.pl in (25b).

(25) a. erek   [NP1 Sabah-ə] [NP2 Kamnoosh-(ə) Soroosh-(ə)   yev Arsalan-ən] **er**
         yesterday   Sabah-SP   Kamnoosh-SP Soroosh-SP and Arsalan-SP **was**
         'Yesterday, Sabah was Kamnoosh, Soroosh and Arsalan.'

   b. erek   [NP1 Kamnoosh Soroosh u   Arsalan-ə] [NP2 Sabah(-ən)] **ein**
         yesterday   Kamnoosh Soroosh and Arsalan-SP   Sabah-SP **were**
         'Yesterday, Kamnoosh, Soroosh and Arsalan were Sabah.'

(26) a.

$$\text{---✘}$$
$$\text{----------------------------------✘}$$

…	AGR	…	[small clause	NP1	…	NP2	]
	[_n]			[n]		[n]	
	[π]			[π]		[π]	
	[_PART]						

   b.

$$\overline{\text{Agree} \hspace{6cm}} \checkmark$$

…	AGR	…	[small clause	NP1	…	NP2	]
	[_n]			[n]		[n]	
	[π]			[π]		[π]	
	[_PART] *Probe reduction*						

• None of the above can capture the agreement with NP1 in specificational clauses in languages like English where NP1 is featurally *more* defective than NP2 and yet agreement is with NP1. We argue that this occurs because NP2 is **inaccessible** to the probe due to an **intervening AGR head**.

• Under this view, what distinguishes a language with NP2 agreement in specificational clauses from an NP1-agreement language is the presence of a Case assigning v$_{AGR}$ in the lower domain of the clause (note the NOM-ACC pattern in English versus the NOM-NOM pattern in Persian).

• The mechanics of NP1 agreement in English proceeds as follows:

- o **Agree in lower domain**: An Agree relation is established between v_{AGR} and NP2 leading to accusative case on NP2 (27).[1] (Note: v_{AGR} cannot Agree with NP1 given its defective feature structure even though NP1 and NP2 are arguably equidistant from the probe due to the symmetric structure of a small clause (Chomsky 1995/2014 among others)).

- o **Agree in higher domain**: Inversion places NP1 in the higher AGR domain (28). In the first cycle of Agree, Agree with NP1 fails because of its defective feature structure. Meanwhile, NP2 is inaccessible due to the intervening v_{AGR} (28a). This leads to probe reduction and subsequent Agree between T_{AGR} and NP1 (28b).

(27)

```
                     _____✓
          ------------------------------------✖
...   │   v_AGR    ...     NP2_ACC   ...   NP1
      │   [ _n ]           [ n ]           [ n ]
      │   [_π]             [ π]
```

(28)

```
                     --------------------------------✖
                 --------------------✖
a.   ...   T_AGR  ...    NP1_nom  ...  │ v_AGR   ...   NP2_ACC   ...   t_SSC
           [ _n ]        [ n ]         │ [ _n ]        [ n ]
           [_π]                        │ [_π]          [ π]
```

```
           _____✓
b.   ...   T_AGR  ...    NP1_nom  ...  │ v_AGR   ...   NP2_ACC   ...   t_SSC
           [ _n ]        [ n ]         │ [ _n ]        [ n ]
           [_ π]                       │ [_π]          [ π]
           probe reduction
```
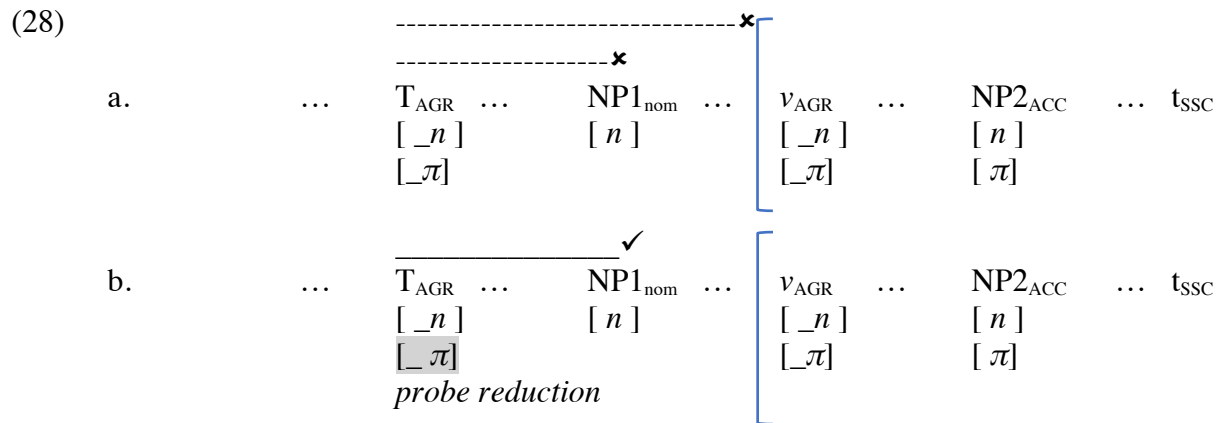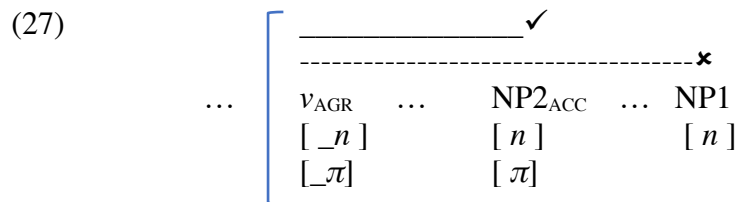
• We have just seen that we can get agreement with a featurally defective NP1 when NP2 is inaccessible in a simple specificational clause (English). This contrasts with a language like Persian where NP2 is accessible in simple specificational clause, yielding NP2 agreement. However, even in Persian we can get NP1 agreement with a specificational subject if NP2 becomes inaccessible. We now turn to such a case, involving a biclausal structure where an NP2 is accessible in the lower domain and controls agreement downstairs, but the same NP2 is inaccessible to the higher domain, resulting in NP1 agreement upstairs.

---

[1] The issue of case assignment to NP2 in binominal copular structures poses a challenge to standard theories of case. In languages with accusative NP2, accusative is unexpected given the unaccusative nature of the copula. Likewise, in languages with nominative NP2, the source of nominative is disputed. One attractive alternative is to treat the case of NP2 as default case. Indeed, this would seem to fit our data well, given that default case in Persian is arguably nominative (and NP2 in Persian is nominative), while in English default case is arguably accusative (and NP2 in English is accusative). Whether or not this might turn out to be the correct analysis for Persian is a matter we leave to future research, however we note that our analysis of NP2 agreement in Persian specificational clauses would not be impacted. Furthermore, the default case hypothesis has been rejected for both NOM-NOM systems (Maling and Sprouse 1995) and NOM-ACC systems (Maling and Sprouse 1995, Schutze 2001).

• The construction in question involves the epistemic use of the Persian modal *tavaanestan* 'can' subordinating a specificational clause, as in (29), where 2ⁿᵈ person NP2 controls agreement in the downstairs clause, but the 3ʳᵈ person NP1 controls agreement upstairs. Note that, more generally, modal contexts in Persian are biclausal structures that show agreement in both the matrix and subordinate domains.

(29)   qaatel-e   tahte-taqib   mi-tun-**e**   to   baash-**i**
          murderer-Ez   under-chase   dur.-can-**3sg**   you   be.subjunctive-**2.sg**
          "The sought after murderer can be you."

• We have evidence that epistemic *tavaanestan* is a raising predicate (Bejar and Kahnemuyipour in prep), based on idiom facts, quantifier float, and the availability of an intensional reading for NP1. Under this analysis, NP1 in (29) is base-generated in the lower clause and raises to subject in the modal clause.

• The fact that NP1 cannot control agreement in the lower domain is unsurprising given the defective feature structure of specificational subjects. However, its ability to control agreement in the higher domain is unexpected for the same reason. This raises the possibility that the agreement upstairs is default agreement, but example (30) shows that this cannot be the case. Here we see 3.pl agreement with the raised NP1.

(30)   qaatel-aa-ye   tahte-taqib   mi-tun-**an**   to   o   Ali baash-**in**
          murderer-pl-Ez under-chase   dur.-can-**pl**   you   and   Ali be.subjunctive-**2.pl**
          "The sought after murderers can be you(pl)."

• The same process we saw above for NP1 agreement in English specificational clauses can account for NP1 agreement in the Persian *tavaanestan* cases. The only difference between the two is that in the former the inaccessibility of NP2 is due to an intervening vₐGR and here it is due to the downstairs TₐGR. This is schematized in (31).

(31) Modal + specificational construction

a.

... T_{AGR} ...   NP1   ...   NP2   ...
         [_n]   [n]   [n]
         [_π]   [π]

b.

NP1 T_{AGR} ...   t   ...   NP2   ...
[n]   [_n]   [n]
         [_π]   [π]

c.

tavaanestan NP1 T_{AGR} ...   t   ...   NP2   ...
               [n] [n̶]   [n]
                      [π̶]   [π]

12

d.
　　　----------------------------------✗
　　　----------------------------✗

T_{AGR}	*tavaanestan*	NP1	T_{AGR}	…	*t*	…	NP2	…
$[\,n\,]$		$[\,n\,]$	$[\,\not{n}\,]$				$[\,n\,]$	
$[\,\pi\,]$			$[\,\not{\pi}\,]$				$[\,\pi\,]$	

e.
　　　_____✓

T_{AGR}	*tavaanestan*	NP1	T_{AGR}	…	*t*	…	NP2	…
$[\,n\,]$		$[\,n\,]$	$[\,\not{n}\,]$				$[\,n\,]$	
$[\,\pi\,]$			$[\,\not{\pi}\,]$				$[\,\pi\,]$	
probe reduction								
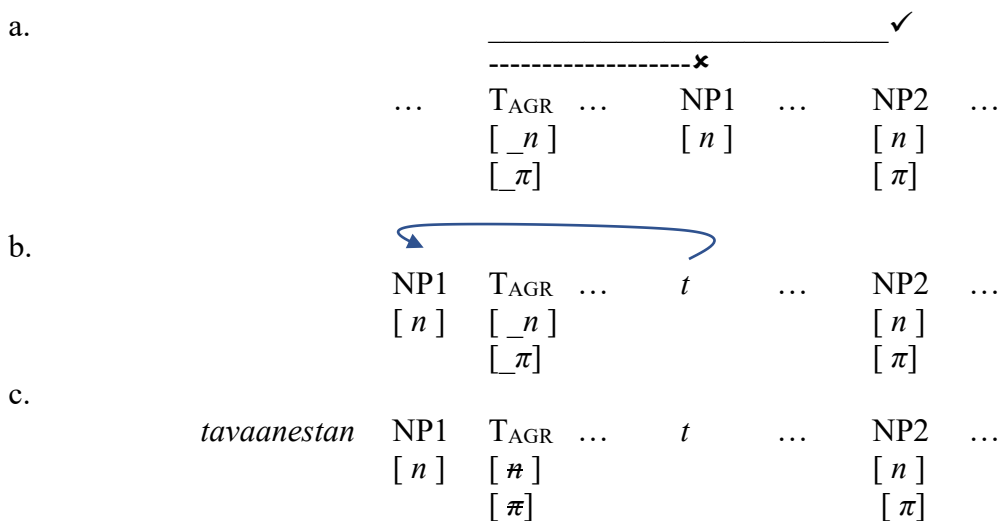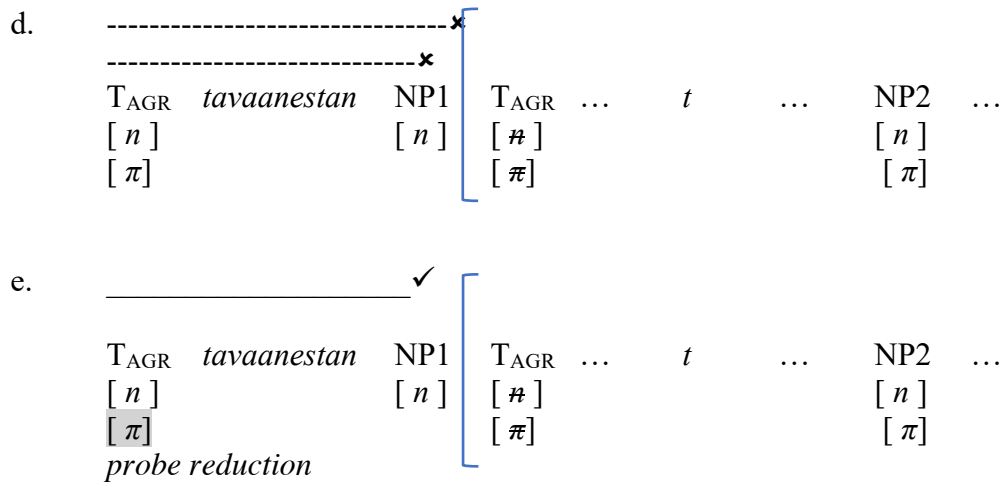
• A similar pattern can be found in Brazilian Portuguese, where agreement in a simple specificational clause is with NP2, but in a modal environment, the agreement on the modal is with NP1 (Costa 2004). Crucially, this contrasts with European Portuguese, where agreement is consistently with NP2. These facts are shown in (32).

(32)　a.　　O　assassino　**pode**　　　ser　　eu.　　　　Brazilian Portuguese
　　　　　　the　murderer　may.3sg　　be　　I　　　　　(Costa 2004: 22b)
　　　　　　　'The murderer may be me.'

　　　b.　　O　assassino　**posso**　　ser　eu　　　　European Portuguese
　　　　　　the　murderer　may-1sg　be　I　　　　　(Costa 2004: 21b)
　　　　　　　'The murderer may be me.'

• Costa (2004) attributes the NP1 agreement in (32a) to the presence of a phase boundary rendering NP2 inaccessible. In (32b), on the other hand, no such boundary exists and NP2 agreement persists. Independent evidence for the proposed boundary comes from clitic climbing facts, where clitic climbing is excluded from structures like (32a) in Brazilian Portuguese but is available for structures like (32b) in European Portuguese.

5. Conclusion

• In this talk we have addressed the puzzle of variation in agreement in binominal copular clauses. We have compared two approaches: (1) a superiority-based approach that explains NP2 agreement by appealing to the superior position of NP2 over NP1 in the base structure of specificational clauses; (2) a feature-based approach that explains NP2 agreement by appealing to the feature structures of probes and goals.

• With respect to NP2 agreement we have argued that the feature-based approach is superior because it naturally extends to contexts beyond specificational clauses where NP2 agreement is also attested. It also is well-suited to the person-sensitive nature of NP2 agreement observed robustly in languages like Eastern Armenian and Uzbek.

• With respect to variation between NP2 agreement and NP1 agreement, the superiority account relies on an assumed difference in the size of the inversion step in specificational copular clauses. We have argued that the necessary assumption cannot be extended to Persian.

• Meanwhile, the feature-based approach accounts for this variation by positing that NP1 agreement occurs when NP2 is inaccessible due to the intervention of an AGR head. We saw this play out in two contexts: (1) simple specificational clauses in English; (2) modal contexts with subordinated specificational clauses in Persian (and Portuguese).

• Finally, we return to a distinction between the two accounts which we raised in the introduction. The superiority account entails a dissociation between superiority and movement: while NP2 is superior, it is NP1 that raises to Spec,TP (33). The explanation for this dissociation is unclear. The feature-based account assumes no such dissociation, but instead entails a dissociation between Agree and superiority (34), which we hope to have fleshed out and justified in this talk.

(33)   [$_{CP}$ [$_{TP}$ **NP1** T   **NP2** ~~NP1~~]]   Superiority account

(34)   [$_{CP}$ [$_{TP}$ **NP1** T ~~NP1~~ **NP2** ~~NP1~~]]   Feature-based account

References

Adger, David, and Gillian Ramchand. 2003. "Predication and Equation." *Linguistic Inquiry* 34(3):325–59. doi: 10.1162/002438903322247515.

Alsina, Àlex, and Eugenio M. Vigo. 2014. "Copular Inversion and Non-Subject Agreement."

Béjar, S. 2003. *Phi-syntax: A theory of agreement*. Toronto, ON: University of Toronto.

Béjar, Susana, and Arsalan Kahnemuyipour. 2017. "Non-Canonical Agreement in Copular Clauses." *Journal of Linguistics* 53(3):463–99. doi: 10.1017/S002222671700010X.

Chomsky, Noam. 1995/2014. *The Minimalist Program*. Cambridge. MIT Press.

Costa, João. 2004. Subjects in Spec,vP: Locality and agree. In Ana Castro, Marcelo Ferreira, Valentine Hacquard & Andres P. Salanova (eds.), *Romance, Op. 47: Collected papers on Romance syntax* (MIT Working Papers in Linguistics 47), 1–15. Cambridge, MA: MIT.

Den Dikken, M., 2006. *Relators and linkers*. Cambridge, MA: MIT Press.

den Dikken, Marcel. 2019. "The Attractions of Agreement: Why Person Is Different." *Frontiers in Psychology* 10. doi: 10.3389/fpsyg.2019.00978.

Djärv, Kajsa. 2021. "The Syntax and Semantics of Swedish Copular Sentences: A Comparative Perspective." *The Journal of Comparative Germanic Linguistics*. doi: 10.1007/s10828-020-09121-1.

Geist, Ljudmila. 2007. "Predication and Equation in Copular Sentences: Russian vs. English." Pp. 79–105 in *Existence: Semantics and Syntax*, *Studies in Linguistics and Philosophy*, edited by I. Comorovski and K. von Heusinger. Dordrecht: Springer Netherlands.

Gribanova, Vera. n.d. "Case, Agreement and Differential Subject Marking across Uzbek Nonfinite Clause Types." 16.

Harley, Heidi, and Elizabeth Ritter. 2002. "Person and Number in Pronouns: A Feature-Geometric Analysis." *Language* 78(3):482–526. doi: 10.1353/lan.2002.0158.

Hartmann, Jutta M., and Caroline Heycock. 2020. "(Morpho)Syntactic Variation in Agreement: Specificational Copular Clauses Across Germanic." *Frontiers in Psychology* 10. doi: 10.3389/fpsyg.2019.02994.

Heggie, Lorie. 1988. "The Syntax of Copular Clauses." PhD Thesis, Ph. D. dissertation, USC.

Heycock, C. (2009). Agreement in specificational sentences in Faroese. *Nordlyd*, *36*(2), 56-77.

Heycock, Caroline. 2012. "Specification, Equation, and Agreement in Copular Sentences." 32.

Heycock, C. and Kroch, A., 1998. Inversion and equation in copular sentences. *ZAS Papers in linguistics*, *10*, pp.71-87.

Higgins, F.R. 1973/2015. *The pseudo-cleft construction in English*. Routledge.

Kahnemuyipour, A., 2009. *The syntax of sentential stress* (No. 25). Oxford University Press.

Keine, Stefan, Michael Wagner, and Jessica Coon. 2019. "Hierarchy Effects in Copula Constructions." *Canadian Journal of Linguistics/Revue Canadienne de Linguistique* 64(4):617–48. doi: 10.1017/cnj.2019.28.

Maling, J. and Sprouse, R.A. 1995. Structural case, specifier-head relations, and the case of predicate NPs. In *Studies in comparative Germanic syntax* (pp. 167-186). Springer, Dordrecht.

Mikkelsen, Line. 2005. *Copular Clauses: Specification, Predication and Equation*. Vol. 85. Amsterdam: John Benjamins Publishing Company.

Moro, Andrea, Vice Rector of the Institute Andrea Moro, and Moro Andrea. 1997. *The Raising of Predicates: Predicative Noun Phrases and the Theory of Clause Structure*. Cambridge University Press.

Partee, Barbara. 1998. Copula inversion puzzles in English and Russian. In *Formal Approaches to Slavic Linguistics: The Seattle Meeting* (pp. 361-395).

Rapoport, Tova R. 1987. "Copular, Nominal, and Small Clauses : A Study of Israeli Hebrew." Thesis, Massachusetts Institute of Technology.

Romero, Maribel. 2005. "Concealed Questions and Specificational Subjects." *Linguistics and Philosophy* 28(6):687–737. doi: 10.1007/s10988-005-2654-9.

Rothstein, Susan. 2001. *Events and Grammar*. Springer Science & Business Media.

Schütze, C.T., 2001. On the nature of default case. *Syntax*, *4*(3), pp.205-238.

Sharvit, Yael. 1999. "Connectivity in Specificational Sentences." *Natural Language Semantics* 7(3):299–339. doi: 10.1023/A:1008390623435.