

Deriving and constraining mixed predicate agreement  
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**Problem:** When an agreement controller contains conflicting semantic and grammatical  $\phi$ -features, predicates that agree with it can differ in which of the features they reflect. Cross-linguistically, they have been shown to respect the *The Predicate Hierarchy*: FINITE VERB > PARTICIPLE > ADJECTIVE > NOUN; where the likelihood of semantic agreement is higher on the targets further to the right (Corbett 1983:43). The effects are easily observable in agreement with the  $[\pi:2, \#:pl]$  honorific pronoun *Vy* in the Slavic family, whose languages pattern into three groups. Group 1 includes Czech, where the finite verb shows  $[\pi:2, \#:pl]$  agreement, while the participle, adjective and noun show  $[\#:sg]$  and gender-dependent agreement (1). Group 2 includes Ukrainian and Belorussian (and prescriptive Slovak), where the participle agrees in  $[\#:pl]$  and masculine gender (2a), while the predicate adjective shows  $[\#:sg]$  and gender-dependent agreement (2b). Languages in Group 3 (Bulgarian, Slovenian, Macedonian; and possibly Upper and Lower Sorbian; and varieties of Bosnian/Croatian/Serbian) optionally allow formal or semantic agreement on the participle, predicate adjective, or both, c.f. participles in Bulgarian (3), and predicate adjectives in Macedonian (4).

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| <p>(1) a. <i>Vy jste byl-a dobr-á.</i><br/> you aux.2.PL been-F.SG good-F.SG<br/> ‘You (female addressee) were good.’</p> <p>b. <i>Vy jste byl-a učitelk-a.</i><br/> you aux.2.PL been-F.SG teacher-F.SG<br/> ‘You (female addressee) were a teacher.’<br/> (Comrie 1975:408)</p> <p>(3) <i>Vie nikoga ne ste bili/bila na opera.</i><br/> you never not aux.2.PL been.PL/been.F.SG in opera<br/> ‘You.F.SG have never been to the opera.’</p> | <p>(2) a. <i>Čoho vy tam sidite?</i><br/> why you there sit.M.PL<br/> ‘Why are you.SG sitting there?’</p> <p>b. <i>Vy tam potrebnij.</i><br/> you there necessary.M.SG<br/> ‘You.M.SG are needed there.’ (Ukrainian, Corbett 1983:50-51)</p> <p>(4) <i>Vie ste ubava/ubavi.</i><br/> you aux.2.PL beautiful.F.SG/beautiful.PL<br/> ‘You.F.SG are beautiful.’</p> |
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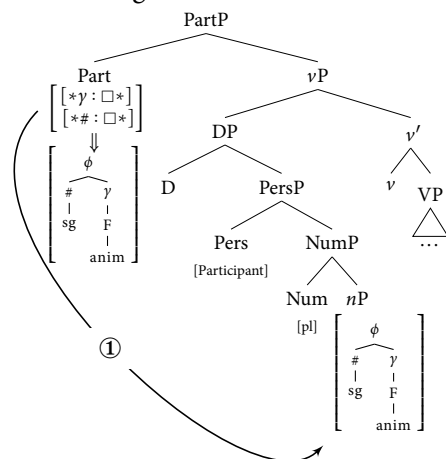
**Claim:** The honorific pronoun formally encodes both the grammatical features (plural number and person) and the natural features (gender and singular number) in all 3 groups. Predicates differ with respect to the  $\phi$ -features they probe for, and the order in which this probing applies. Participles and adjectives agree in number and gender. Variation among and within languages emerges from the order of these operations (strict or underspecified). Finite verbs in all groups agree in number and person, in that order.

**Background:** In languages above local (1st and 2nd) person pronouns control natural gender and number agreement (e.g. *Ja sam umorn-a* ‘I.1SG am tired.F.SG’). Thus, Nevins & Parrott (2010), Nevins (2011), Wechsler (2011), Wechsler & Hahm (2011), Parrott (2015), Despić (2017) have argued that local person pronouns can encode natural gender and number, even though these features are not observable in the pronouns’ morphology. Following these accounts, and especially Wechsler (2011), Wechsler & Hahm (2011), Despić (2017), I assume that the honorific pronoun also encodes semantic features. Moreover, I follow Despić (2017) in assuming that masculine gender  $[\gamma:M]$  on predicates in Ukrainian and Bulgarian participles (2a), (3) is not (and must not be) present on an honorific pronoun, but is instead a default value resulting from failed gender agreement (pace Wechsler 2011, Wechsler & Hahm 2011). Finally, according to Despić (2017), the structure and features of the honorific pronoun are constant across languages – it encodes both a grammatical and a natural feature set. An agreement target that can show mixed agreement must agree either in fully formal or fully semantic features of the hybrid controller; i.e. a participle never agrees with the honorific pronoun by copying *grammatical* number (plural) and the *natural* gender (feminine/masculine). As Despić does not provide technical implementation, I propose a derivational account for the observations.

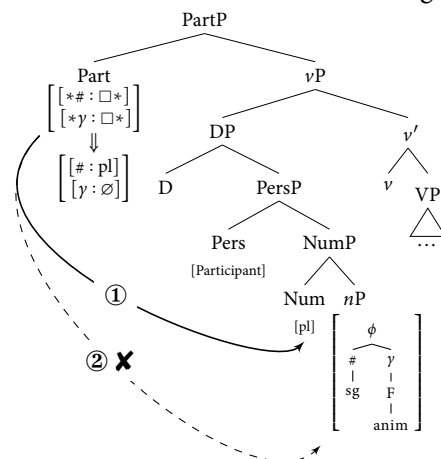
**Proposal:** The analysis utilizes the following theoretical assumptions. (i) Pronouns are DPs in the languages above (cf. Progovac 1988, Franks & Pereltsvaig 2004). Combining insights from Distributed Morphology (Halle & Marantz 1993, Harley and Noyer 1999, Kramer 2015) and van Coppen (2012, and predecessors), I assume the following structure for local person pronouns:  $[_{DP} D [_{PersP} Pers [_{NumP} Num [_{nP} n ]]]]$ . *nP* hosts natural gender and number features (c.f. Kramer 2015), i.e.  $[\gamma:F, \#:sg]$  for a female-referring honorific pronoun; *NumP* hosts grammatical number (i.e.  $[\#:pl]$  for honorific pronoun); *PersP* hosts person features (i.e.  $[\pi:Participant]$  for hon. pron.). This models the idea that natural and grammatical features are encoded separately on the pronoun. (ii) Natural gender and number features are organised in a feature geometry

(cf. Harley and Ritter 2002, Bejar & Rezac (B&R) 2009; and Preminger 2014:47, Deal 2015 for person and number). There is a hierarchical entailment relationship between features. Being ‘animate’ entails having a gender feature (see the *nP* in (5)-(6); animacy + gender together make up natural gender). (iii) Agree involves copying the entire feature inventory (i.e. the whole ‘snippet’) from the goal to the probe (Preminger 2014). This models the idea that all natural features are copied together. (iv)  $\pi$ , # and  $\gamma$  agreement are triggered by separate probes on the same head (Bejar 2003, Preminger 2014). The order of their discharge is a matter of parametric variation. The order may, but need not, be underspecified in a language (Müller 2009, Georgi 2014, Assmann et al. 2015). As a result, #-Agree can precede or follow  $\pi/\gamma$ -Agree on a given head. (v) Finite verbs (T) have  $\pi$  and # probes, while participles (Part) and adjectives probe only for # and  $\gamma$  in Slavic. (vi) After the initial Agree operation has applied, the next Agree on the same head must minimise its search domain. Any subsequent Agree operation cannot target phrases c-commanded by the goal targeted by the previous Agree (c.f. locality restrictions on Move; Richards 2001, Branigan 2012, 2013). **Participles and predicate adjectives** perform two operations: Gender Agree ( $\gamma$ -Agree) and Number Agree (#-Agree). If  $\gamma$ -Agree applies first, the probe will search to *n* to find the [ $\gamma$ :F,anim] feature. Since gender is embedded under  $\phi$  and cannot be copied separately, the probe copies the whole snippet of the geometry (cf. iii), resulting in [ $\gamma$ :F,anim, #:sg] valuation of the participle (5). The number probe is automatically satisfied by the [#:sg] feature. If order is reversed on Part, #-Agree will find the closest [#:pl] on Num. Due to the restriction on Agree domains (vi), the gender probe will not be able to reach *n*, as *n* is c-commanded by the previously targeted goal (Num).  $\gamma$ -Agree fails and the Part receives the default masculine gender value.

(5) Natural gender and number:



(6) Grammatical number and failed gender:



**Consequences, conclusions, outlook:** As a result, languages in which semantic agreement is the norm (Czech) always order  $\gamma$ -Agree before #-Agree on Part and predicate adjectives. Languages where Part uniformly agrees in the plural and default gender (Belorussian, Ukrainian, Russian, Slovak) order #-Agree first. Their predicate adjectives, however, order  $\gamma$ -Agree first. Finally, languages where optionality obtains (Bulgarian, Macedonian, Slovenian, etc.) optionally allow both orders. Finite verbs (T) perform only #-Agree and  $\pi$ -Agree, in that order, which results in uniform [ $\pi$ :2, #:pl] agreement across all languages. In sum, variation between formal and semantic agreement can be derived as a narrow-syntactic process which involves precise loci of  $\phi$ -features in the DP structure, feature-geometric structure of  $\phi$ -features, separate agreement for individual features and variable ordering of Agree operations. Crosslinguistic variation may be captured by letting languages choose whether they will allow both orders of Agree operations on all, some, or none of their probes. ‘Semantic agreement’ is thus actually a process of syntactic feature valuation. The following step in the research is to account for the contrast in (7)-(8) (Slovenian, Corbett 1983:49).

(7) ?Vi ste bili dobra.  
 you.2.PL aux.2.PL been.M.PL good.F.SG  
 ‘You were good.’ PART:PL – ADJ:SG ✓

(8) \*Vi ste bila dobri.  
 you.2.PL aux.2.PL been.F.SG good.M.PL  
 ‘You were good.’ \*PART:SG – ADJ:PL ✗

In languages that allow optionality on all predicates, formal agreement on the participle followed by semantic agreement on the Adj is allowed, but the reverse is ungrammatical. I will argue that the restrictions come from the configuration of the Pred(ication) Phrase (and the pronoun’s position in it) and the timing of agreement on the Pred and Part heads, and movement of the pronoun out of PredP to Spec-Part.