

# Interpretability and Gender Features in Coordination: Evidence from Greek\*

Luke Adamson (Harvard University) and Elena Anagnostopoulou (University of Crete)

Agreement in Multivaluation Constructions (AMC) Workshop  
May 19, 2021

## 1 Introduction

- Accounts of gender resolution in coordinate structures often distinguish between ‘semantic’ and ‘syntactic’ strategies.<sup>1</sup>
- A common view says that both strategies can be operative within a language, with the choice conditioned by e.g. animacy.
- In Greek, this dichotomy can be seen with mismatch with coordinated human nouns (‘semantic’ resolution) vs. coordinated inanimates (‘syntactic’ resolution).<sup>2</sup>

(1) O andras ke i gineka ine {eksipni /\*eksipna}.  
the. M.SG man and the. F.SG woman are intelligent. M.PL / intelligent.N.PL  
‘The man and the woman are intelligent.’

(2) O pinakas ke i karekla ine {vromika /\*vromiki}.  
the. M.SG blackboard and the. F.SG chair are dirty. N.PL / dirty.M.PL  
‘The blackboard and the chair are dirty.’

- According to this view, in the case of ‘syntactic’ resolution, conjunct mismatch results in the insertion of a default gender value or the realization of a gender-default form.
- Under this approach, NEUT in (2) surfaces because of a more general ‘default’ status of NEUT consistent with e.g. agreement with clausal subjects.<sup>3</sup>

(3) To oti lipase ine katanoito.  
the. N.SG that be.sorry.2SG is understandable. N.SG  
‘That you are sorry is understandable.’

---

\*We would like to thank Jonathan Bobaljik and Christos Christopoulos, and the audience at WCCFL39 for discussion, as well as Christos Christopoulos, Alexandros Kalomoiros, Dimitris Michelioudakis, and Vina Tsakali for native-speaker consulting for some of the examples. This material is based upon work supported by the National Science Foundation SBE Postdoctoral Research Fellowship under Grant No. 1911708.

<sup>1</sup>Corbett 1991; Wechsler and Zlatić 2003; Sadler 2006; Wechsler 2008; among others.

<sup>2</sup>See Chilla-Markopoulou 2003; Kazana 2011; Anagnostopoulou 2017 on coordination resolution in Greek.

<sup>3</sup>On the defaultness of neuter in Greek, see e.g. Tsimpli and Hulk 2013. See also the discussion in Alexiadou and Iordăchioaia 2014, who suggest that neuter agreement with deadjectival nominals reflects the gender’s default status.

**This talk:** Novel evidence from Greek that supports a model of gender resolution where both *interpretable* and *uninterpretable* gender features (*i*Fs and *u*Fs, respectively) can interact with each other.

- We develop a feature calculus of resolution that involves both *i*Fs and *u*Fs
- Relevant evidence from human-denoting fixed-gender nominals and the coordination of humans with inanimates.
- We show that in Greek, when no gender features are shared, the result is *undefined* rather than ‘default’, leading to ungrammaticality when an agreement target attempts to express features copied from &P.

(4) ??/\*O kleftis ke to daxtilidi ine afanti/afanta.  
 the.M.SG thief and the.N.SG ring be.3.PRS gone.M.PL/gone.N.PL  
 ‘The thief and the ring are gone.’

We suggest that **neuter can be an *interpretable* gender**.

- ‘Default’ arises in Greek only in situations where there is no gender specification, and hence no gender agreement (cf. Tsimpli and Hulk 2013).
- Default insertion is not a globally available ‘repair’ strategy.<sup>4</sup>
- A more fine-grained approach to neuter gender is required, wherein neuter can be interpretable in addition to being ‘default’ (pace Kramer 2015 and others).

The facts support a *dual-feature* approach in which nominals can carry both interpretable and uninterpretable features (Wurmbrand 2016, 2017; Smith 2015, 2017; among others).

## Roadmap

- Section 2: Background on gender
- Section 3: Basic coordination of human-denoting nominals
- Section 4: Basic coordination of inanimates
- Section 5: Coordination with fixed-gender human-denoting nominals
- Section 6: Coordination of humans with inanimates
- Section 7: Coordination of fixed-gender human nominals with inanimates
- Section 8: Some additional predictions
- Section 9: Discussion/conclusion

## 2 Background/Assumptions about Gender Representation

### Gender and Interpretability

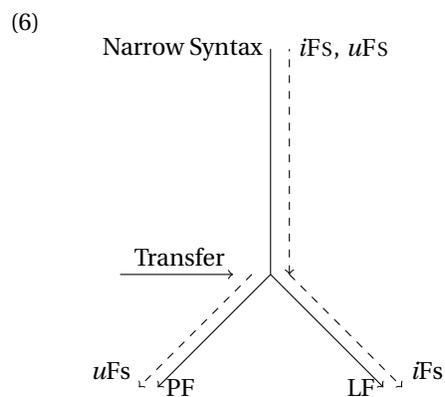
As in many languages, in Greek, the gender expressed through agreement with some nouns is determined notionally, while the determination of the gender of other nouns is determined non-notionally ('arbitrarily').

- (5) a. *i gineka*  
the.F.SG woman  
'the woman'
- b. *i karekla*  
the.F.SG chair  
'the chair'

We adopt the distinction between *uninterpretable* and *interpretable* gender features.<sup>5</sup>

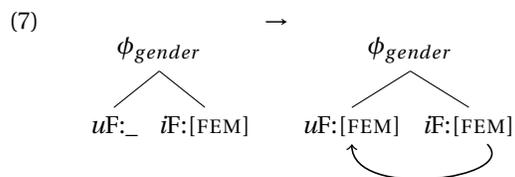
- Grammatical gender expressed with inanimates is uninterpretable.

In the dual-feature system we adopt,<sup>6</sup> *i*Fs are sent to the LF interface and *u*Fs are sent to the PF interface.



### In this system:

- The *i*Fs correspond to semantic/notional gender interpreted at LF.
- The *u*Fs correspond to values realized at PF.
  - Both a feminine inanimate (e.g. *i karekla* 'the chair') and a feminine human-denoting noun (e.g. *i gineka* 'the woman') bear uninterpretable [FEM] sent to PF.
  - For *i*Fs without a corresponding *u*F, a 'redundancy rule' applies that copies the *i*F value.<sup>7</sup>



<sup>5</sup>See Kramer 2015; see also Percus 2011 on gender and uninterpretable.

<sup>6</sup>Smith 2015, 2017; Anagnostopoulou 2017; Wurmbrand 2016, 2017; Puškar 2017. This dichotomy is related to the CONCORD vs. INDEX distinction from Wechsler and Zlatic 2003; Wechsler and Hahm 2011; Landau 2016; and related work.

<sup>7</sup>Adamson submitted; cf. Wechsler and Zlatic 2003:50 for a similar representational relation between CONCORD and INDEX.

**Proposal for Greek:** the inventory of gender features includes the following values.

- *i*[FEM]
  - *i*[MASC]
  - *i*[NEUT]
  - *u*[FEM]
  - *u*[MASC]
  - *u*[NEUT]
- While much of this is conventional within some of the literature, the interpretability of neuter gender is controversial. *The evidence from coordination discussed here supports this status of the neuter gender.*<sup>8</sup>

### Gender and Markedness

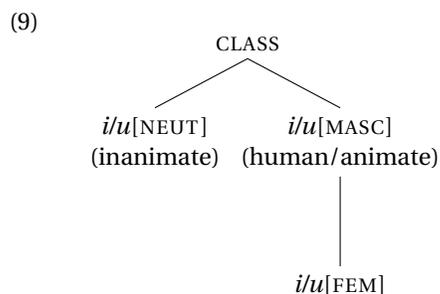
Before proceeding, one further assumption we make concerns the representation of *markedness*.

- Feminine is more marked than masculine among human-denoting nominals, as reflected in its stronger gender presupposition.<sup>9</sup>

- *i*[FEM] = notionally feminine (i.e. women)
- *i*[MASC] = notionally human/animate

- (8) a. Dhen ksero pjos ine o jatros edo.  
not know.1.SG who.M.SG.NOM is the.M.SG.NOM doctor here  
'I don't know who the doctor is here.' (=the doctor is of unknown gender)
- b. Dhen ksero pja ine i jatros edo.  
not know.1.SG who.F.SG.NOM is the.F.SG.NOM doctor here  
'I don't know who the doctor is here.' (=the doctor is a woman)

- We assume that gender features are represented geometrically (Harley and Ritter 2002), though we modify this geometry such that [FEM] entails [MASC].<sup>10</sup>



- Gender features are interpreted distributively for a group.<sup>11</sup>

- (10) a. i dhaskali ine ne-i.  
the.M.PL teacher.PL are young-M.PL  
'The teachers are young.' (all men or gender-mixed group)
- b. i dhaskales ine ne-es.  
the.F.PL teacher.PL are young-F.PL  
'The teachers are young' (all women)

<sup>8</sup>See also Thorvaldsdóttir 2019 on the interpretability of neuter in Icelandic coordination.

<sup>9</sup>Jakobson 1984; Bobaljik and Zocca 2011; Sudo and Spathas 2016; among many others.

<sup>10</sup>See Adamson and Šereikaitė 2019; relatedly, Bobaljik 2012 on a containment approach to feature markedness. We set to the side the precise characterization of 'humanness' or 'animacy' as the relevant dimension of meaning for the masculine. Note that we have not considered abstract nouns, which present a number of complications. For example, they are overwhelmingly feminine, and seem to license unexpected patterns in coordination resolution, e.g. Chilla-Markopoulou 2003:154, ex. 50. We leave this issue to further research.

<sup>11</sup>See e.g. Corbett 1991; Wechsler and Zlatić 2003; Wechsler 2008; among many others.

### 3 Basic Uniform- and Mismatch-Gender Resolution with Human-Denoting Nominals

#### Human Uniform Pattern

Agreement for uniform-gender conjuncts is for the shared gender.<sup>12</sup>

- (11) I Maria ke i Giota ine eksipnes.  
 the.F.SG Maria and the.F.SG Giota are intelligent.F.PL  
 ‘Maria and Giota are intelligent.’  $F\bar{Q} + F\bar{Q} = F$
- (12) O Petros ke o Kostas ine eksipni.  
 the.M.SG Peter and the.M.SG Kostas are intelligent.M.PL  
 ‘Peter and Kostas are intelligent.’  $M\sigma + M\sigma = M$

#### Human Mismatch Pattern

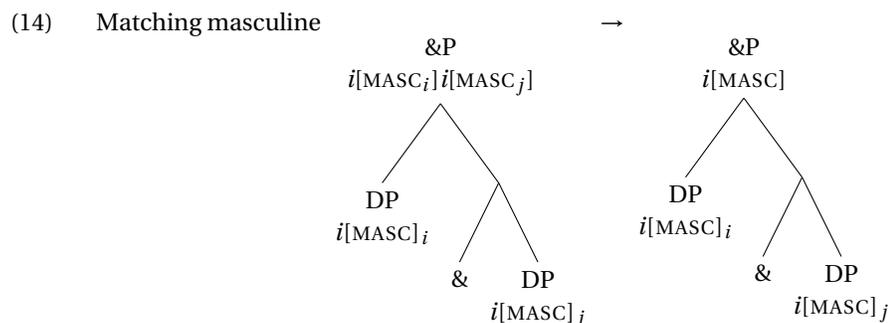
Agreement for mixed-gender conjuncts is masculine plural.

- (13) O andras ke i gineka ine {eksipni /\*eksipna}.  
 the.M.SG man and the.F.SG woman are intelligent.M.PL /intelligent.N.PL  
 ‘The man and the woman are intelligent.’  $M\sigma + F\bar{Q} = M$

**Proposal:** &P resolves interpretable gender features to a shared value; this amounts to feature intersection.<sup>13</sup>

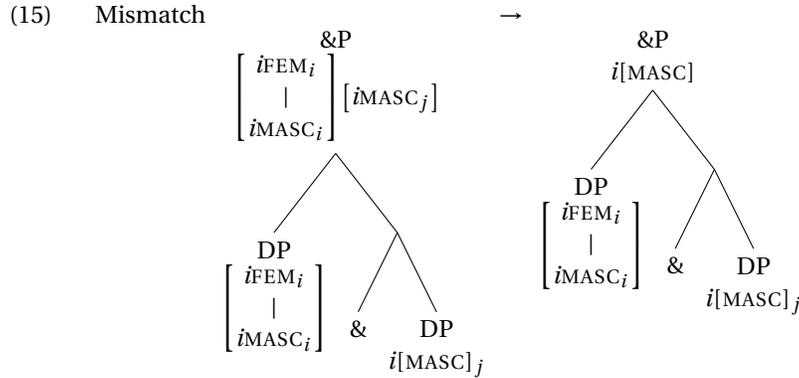
- Following Adamson (submitted), in coordination resolution, two steps take place: i) Percolation and ii) Conversion(/resolution). Conversion is only triggered by agreement for *i*Fs (in the syntax). This means that *u*Fs may percolate up, but do not participate in conversion.

1. **ATB percolation of values to &P.**
2. **Conversion of interpretable values** through intersection.



<sup>12</sup>Throughout, we use singular conjuncts, which makes closest conjunct agreement unlikely or impossible when the agreement target is plural; see e.g. Marušič et al. 2015 on their Consistency Principle.

<sup>13</sup>cf. Despić 2016; Anagnostopoulou 2017; Adamson and Šereikaitė 2019; Adamson submitted; see Börjars and Vincent 2006 and Wechsler 2008 on set intersection in coordination.



### 4 Basic Uniform-Gender and Mismatch-Gender Resolution with Inanimates

**Proposal:** For inanimates, ATB *percolation* occurs.<sup>14</sup> However, *uF*s cannot be converted into single values in Greek.

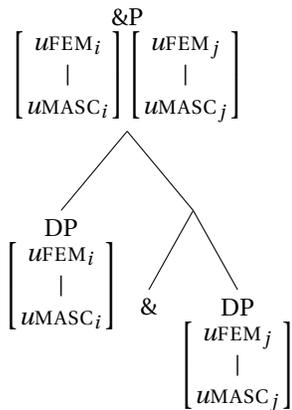
#### Inanimate Uniform Pattern

In (16)-(18), we observe the simple cases of coordinating two inanimates that have the same grammatical gender, i.e. [F + F], [M + M], [N + N].

- In Greek, the predicate agrees with the shared grammatical gender of the conjuncts.<sup>15</sup>
- Though percolated *uF*s are not converted into a single value, the percolated features are the same, resulting in non-conflicting *uF* values that can receive a realization at PF (Adamson submitted)

(16) I fusta ke i bluza ine vromikes.  
 the.<sub>F.SG</sub> skirt and the.<sub>F.SG</sub> t-shirt are dirty.<sub>F.PL</sub>  
 ‘The skirt and the t-shirt are dirty.’

F<sub>♂</sub> + F<sub>♂</sub> = F

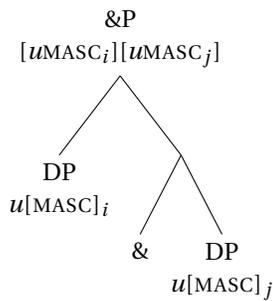


<sup>14</sup>cf. Despić 2016; Anagnostopoulou 2017; Adamson and Šereikaitė 2019; Adamson submitted. See Dalrymple and Kaplan 2000 and Sadler 2011 for related (albeit distinct) approaches.

<sup>15</sup>Note that not all three gender languages work this way. For example, in Slovenian and BCS, the coordination of two neuters results in masculine ‘default’ agreement (Corbett 1991; Wechsler and Zlatić 2003; Marušič et al. 2015; Willer-Gold et al. 2016).

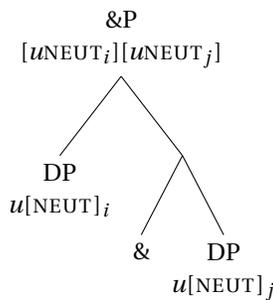
- (17) O anaptiras ke o fakos ine vromiki.  
 the.M.SG lighter and the.M.SG torch are dirty.MASC.PL  
 ‘The lighter and the torch are dirty.’

$M_{\text{♂}} + M_{\text{♂}} = M$



- (18) To pirouni ke to koutali ine vromika.  
 The.N.SG fork and the.N.SG spoon are dirty.N.PL  
 ‘The fork and the spoon are dirty.’

$N_{\text{♂}} + N_{\text{♂}} = N$



### Inanimate Mismatch Pattern

Mixed-gender conjuncts yield neuter agreement obligatorily, regardless of the specific gender combinations.

- (19) O pinakas ke i karekla ine {vromika /\*vromiki}.  
 the.M.SG blackboard and the.F.SG chair are dirty.N.PL /dirty.M.PL  
 ‘The blackboard and the chair are dirty.’

$M_{\text{♂}} + F_{\text{♂}} = N$

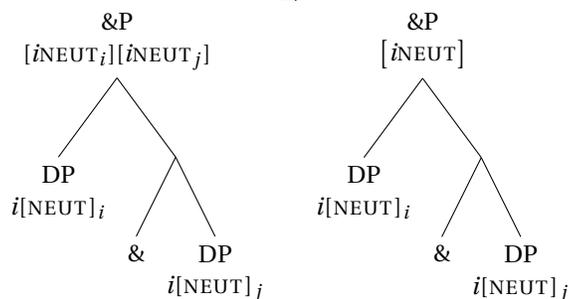
- (20) To pezodromio ke i ekklesia ine {vromika /\*vromiki /\*vromikes}.  
 the.N.SG sidewalk and the.F.SG church are dirty.N.PL /dirty.M.PL /dirty.F.PL  
 ‘The sidewalk and the church are dirty.’

$N_{\text{♂}} + F_{\text{♂}} = N$

- (21) To balkoni ke o dhiadhromos ine {vromika /\*vromiki}.  
 the.N.SG balcony and the.M.SG corridor are dirty.N.PL /dirty.M.PL  
 ‘The balcony and the corridor are dirty.’

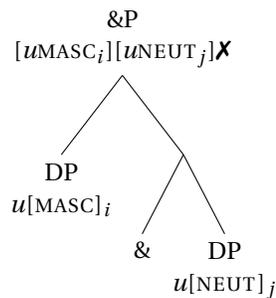
$N_{\text{♂}} + M_{\text{♂}} = N$

- Following Anagnostopoulou (2017), we propose that this is so because neuter is interpreted as inanimate.
- Under the present approach, neuter agreement is the result of percolation of  $i[NEUT]$  from each conjunct (followed by conversion)



- Note that *uF* percolation would result in a feature clash that cannot be realized by the morphology.<sup>16</sup>

(22)



### The interpretability of neuter gender is independently motivated.

- The overwhelming majority of (non-derived) neuter nouns denote inanimates.
- Neuter is more common than the masculine (the other contender for a gender default).<sup>17</sup>
- Diachronic evidence suggests that neuter is associated with inanimates: many masculine and feminine inanimates from Ancient Greek became neuter in Modern Greek (Anastasiadi-Symeonidi and Chilla-Markopoulou 2003)
- Among human-denoting nouns, neuter is often seen with nouns low on the animacy hierarchy, and are therefore treated in some sense like inanimates (e.g. *agori* ‘boy’, *koritsi* ‘girl’, *pedi* ‘child’, *moro* ‘baby’, *thima* ‘victim’)<sup>18</sup>
- Neuter diminutives suffixes, which are pejorative for (many) human-denoting nouns when there is an alternative gender-preserving diminutive suffix.<sup>19</sup>

(23) o andras / o andr-ulis / to andr-aki  
 the.M.SG man / the.M.SG man-DIM / the.N.SG man-DIM  
 ‘the man / the little man (endearing) / the little man (pejorative)’

(24) Agapo poli ton androuli mu/ #to andraki mu  
 love.1.SG much the.M.SG.ACC man-DIM my/ the.N.SG.ACC man-DIM my  
 ‘I love my dear husband.’

(25) a. Poli to andraki mas pezi!  
 much the.N.SG.ACC man-DIM CL.DAT play.3.SG  
 ‘He pretends to us to be a big man!’  
 b. #Poli ton androuli mas pezi!  
 much the.N.SG.ACC man-DIM CL.DAT play.3.SG  
 ‘He pretends to us to be a big man!’

### Further Prediction

- Native speakers of Greek in several surveys report that neuter agreement with uniform masculine and uniform feminine inanimates is acceptable.<sup>20</sup>

<sup>16</sup>See Citko 2005; Sadler 2011; Coon and Keine 2020, among others, for related approaches to feature clashes and syncretism.

<sup>17</sup>Mackridge 1985:52, citing Mirambel 1959:84 (based on 600 nouns: 240 neuters, 195 feminine, and 149 masculine); see also Kavoukopoulos 1996, who finds more feminine than neuter, but nevertheless finds that both feminine and neuter are more common than masculine. Thanks to Ianthi Maria Tsimpli (p.c.) for making this last reference available to us.

<sup>18</sup>cf. Corbett 1991:14 on other languages.

<sup>19</sup>The pattern holds for other nouns, including *ginek-oula* vs. *ginek-aki* ‘woman-DIM’; *dikigor-akos* vs. *dikigor-aki* ‘lawyer-DIM’; *giatrud-akos* vs. *giatrud-aki* ‘doctor-DIM’. Note that it is not specifically *pejorative* – when applied to non-human and inanimate nouns: *gat-aki* ‘little cat’, *skil-aki* ‘little dog’, *kapel-aki* ‘little hat’, *xer-aki* ‘little hand’. The same applies for children-denoting nouns, e.g. *ped-aki* ‘little child’. This pattern warrants further investigation.

<sup>20</sup>Chilla-Markopoulou 2003; Kazana 2011; see also Anagnostopoulou 2017.

- This is predicted by the account we argue for, given that inanimates bear  $i$ [NEUT], which can be percolated up to &P (and subsequently converted). (This suggests that there is optionality of the percolation of either  $i$ Fs or  $u$ Fs with inanimates, unlike what we will see with human-denoting nominals.)

- (26) a. I fusta ke i bluza ine vromika.  
 the.F.SG skirt and the.F.SG t-shirt are dirty.N.PL  
 ‘The skirt and the t-shirt are dirty.’ F<sub>♂</sub>+F<sub>♂</sub>=N
- b. O anaptiras ke o fakos ine vromika.  
 the.M.SG lighter and the.M.SG torch are dirty.N.PL  
 ‘The lighter and the torch are dirty.’ M<sub>♂</sub>+M<sub>♂</sub>=N
- 
- &P  
[ $i$ NEUT<sub>*i*</sub>][ $i$ NEUT<sub>*j*</sub>]

DP  
 $i$ [NEUT]<sub>*i*</sub>

& DP  
 $i$ [NEUT]<sub>*j*</sub>

&P  
[ $i$ NEUT]

DP  
 $i$ [NEUT]<sub>*i*</sub>

& DP  
 $i$ [NEUT]<sub>*j*</sub>

## 5 Fixed-Gender Human-Denoting Nominals

We now show that fixed-gender human-denoting nominals (henceforth *fixed-gender humans*) obligatorily percolate their  $i$ Fs in resolution.

- As in some Romance languages, in Greek, there is a class of nouns where the grammatical gender does not vary according to the notional gender of human referents.<sup>21,22</sup>

- (27) a. i thiliki megalofia  
 the.F.SG female.F.SG genius  
 ‘the male/female genius’
- b. {i /\*o} arseniki megalofia  
 the.F.SG /the.M.SG male.F.SG genius  
 ‘the male genius’
- (28) a. {to /\*i} thima ine i Maria.  
 the.N.SG / the.F.SG victim is the.F.SG Maria  
 ‘The victim is Maria.’
- b. {to /\*o} thima ine o Janis.  
 the.N.SG /the.M.SG victim is the.M.SG Janis  
 ‘The victim is Janis.’

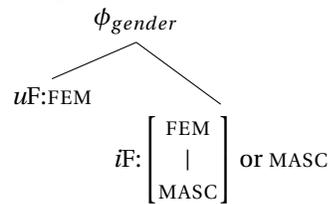
- Recall that in our system, nominals can bear both  $i$ Fs and  $u$ Fs, which are sent to the PF and LF interfaces, respectively.

<sup>21</sup>See e.g. Percus 2011 on Italian.

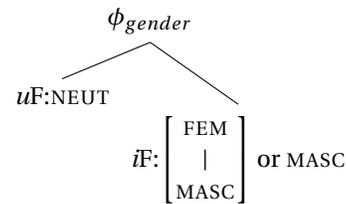
<sup>22</sup>There is an alternative compounding or appositional option, which then tracks the notional gender of the referent.

- (i) o andras-megalofia / i gineka-megalofia  
 the.M.SG man-genius / the.F.SG woman-genius  
 ‘the genius (a man / a woman)’

(29) a. i megalofia



b. to thima



- Fixed-gender humans behave in coordination exclusively as if they have their *iF* for resolution.<sup>23</sup>
- Previous investigations have shown this resolution pattern with nouns like *agori* ‘boy’, *koritsi* ‘girl’, *pedi* ‘child’, *moro* ‘baby’<sup>24</sup>:

(30) I            gineka ke to            koritsi ine eksipnes            /\*eksipni.  
 the. F.SG woman and the. N.SG girl    are intelligent. F.PL /intelligent.M.PL  
 ‘The woman and the girl are intelligent.’ (Anagnostopoulou 2017)  
F ♀+ N ♀= F

- However, this work has focused largely on *neuter* fixed-gender nouns that refer to children, which may not be subject to the same interpretation requirements as adult-denoting nouns.<sup>25</sup>
- To address this issue, we widen the set of nouns to include i) neuter fixed-gender nouns that are (often) adult-denoting and ii) feminine fixed-gender nouns.<sup>26</sup>

Table 1: Fixed-Gender Nouns

to thima	the.N.SG victim
to atomo	the.N.SG person
to prosopo	the.N.SG character/person
i megalofia	the.F.SG genius
i diasimotita	the.F.SG celebrity
i prosopikotita	the.F.SG personality

- Resolution with fixed-gender nominals is for *interpretable* gender. This means that *ugender* is not percolated to the &P level.

(31) I            megalofia/diasimotita ke i            gineka tu ine {xarumeni    /\*xarumenes}.  
 the. F.SG genius/celebrity    and the. F.SG wife    his are happy. M.PL /happy.F.PL  
 ‘The genius/celebrity and his wife are happy.’ F ♂+ F♀= M

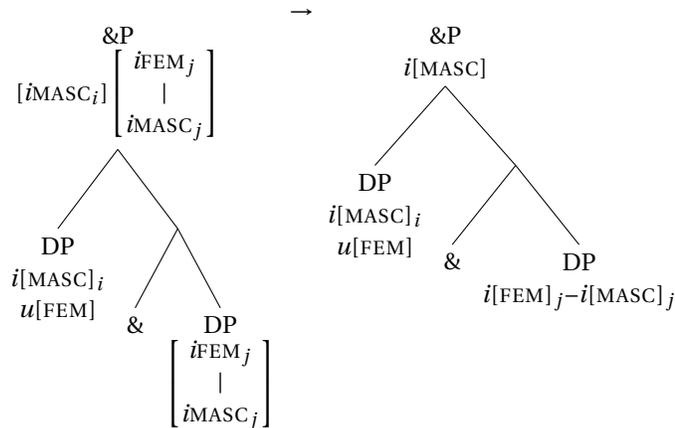
<sup>23</sup>For other languages, see Wechsler and Zlatić 2003; Ferrari-Bridgers 2007; Wechsler 2008; Kučerová 2018; among others.

<sup>24</sup>Kazana 2011; Anagnostopoulou 2017.

<sup>25</sup>We speculate that this may be at play for Kazana’s (2011) finding that some speakers accept masculine resolution for examples like (i).

- (i) %Ta            koritsia ke i            mamades ine poli demeni.  
 the.N.PL girl.PL    and the.F.PL mother.PL are very close.M.PL  
 ‘The girls and the mothers are very close.’ (Kazana 2011:78)

<sup>26</sup>Note that some of these nouns are also used to refer to abstract properties; our expectation is that in coordination, these uses should pattern with other nouns denoting abstract properties (i.e. as inanimates).



- (32) To thima ke i mitera tis ine {tromagmenes /\*tromagmeni /\*tromagmena}.  
 the. N.SG victim and the. F.SG mother her are scared. F.PL /scared.M.PL /scared.N.PL  
 ‘The victim and her mother are scared.’ N ♀+ F ♀= F

- This replicates the basic finding from Wechsler and Zlatić 2003; Wechsler 2008 for other languages that, for human-denoting nominals, speakers opt for *igender* over *ugender*.
- Why is there a preference for interpretable gender?

We suggest that a principle like Maximize Presupposition<sup>27</sup> is at play, such that *i*Fs must be present **whenever** they can be.

- This principle is operative for human-denoting nominals.
- For inanimates, as we observed, there is a choice between the percolation of *u*Fs and *i*Fs, with a preference for the former. (We leave this as an open question why there is a difference between human-denoting and inanimate nominals.)

## 6 Humans + Inanimates

Coordination for human nominals with inanimates show the following:

1. Defaults cannot be employed to ‘rescue’ conjunct mismatch beyond repair
2. Neuter is interpreted as inanimate, causing an interpretability clash in coordination with human nominals
3. There is interesting interplay between *ugender* and *igender* that can lead to grammaticality in certain conditions.

### [H + I] is possible when there is no gender agreement with &P.

- Evidence like (33) is sometimes taken to indicate that [H + I] coordination is ungrammatical altogether.<sup>28</sup>

- (33) ??/\*O kleftis ke to daxtilidi ine afanti/afanta.  
 the. M.SG thief and the. N.SG ring be.3.PRS gone.M.PL/gone.N.PL  
 ‘The thief and the ring are gone.’ M ♂+ N ♀= X

However, four pieces of evidence suggest that examples like (33) can be attributed to:

= *the exponence of resolved gender agreement* (as our account can capture)

<sup>27</sup>Heim 1983; see Sudo and Spathas 2016 for a related principle for gender.

<sup>28</sup>e.g. Kazana 2011:87; see Corbett 1991:303-306 for related discussion.

≠ a ban on [H + I] coordination

[H + I] coordination is possible in the following environments:

1. No agreement target (e.g. in object position)

(34) I astinomia entopise mazi [ton klefti ke to klemeno daxtilidi].  
the police spot.PST.3.SG together the.M.SG.ACC thief and the.N.SG.ACC stolenSG.ACC ring  
'The police spotted the thief and the stolen ring.'

2. Finite verb agreement, which does not alternate for gender

(35) O kleftis ke to daxtilidi eksafanistikan.  
the.M.SG thief and the.N.SG ring disappeared.3.PL  
'The thief and the ring disappeared.'

3. Closest conjunct agreement in predicate-inverted contexts<sup>29</sup>

(36) Ine entopismenos o kleftis ke to klemeno daxtilidi mazi stin Santorini.  
be.3.PRS spotted.M.SG the.M.SG thief and the.N.SG stolen ring together at.the Santorini  
'The thief and the stolen ring were spotted on Santorini (together).'

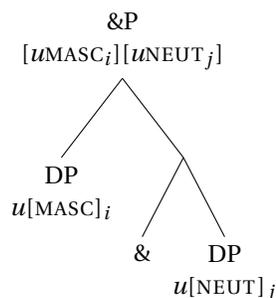
4. Non-inflected loanword adjectives

(37) O Giorgos ke to pukamiso tu ine sexy/ {\*elkistiki / \*elkistikes /  
the.M.SG Giorgos and the.N.SG shirt his are sexy /attractive.M.PL / attractive.F.PL /  
?\*elkistika}.  
attractive.N.PL  
'Giorgos and his shirt are sexy/attractive.'

→We conclude that the problem in (33) has to do with agreement with mismatched conjuncts, where neither *u*gender nor *i*gender can yield a uniform value.

- **We correctly rule out (33):**Percolation of uninterpretable features results in a set of features that cannot be expounded by an agreement morpheme

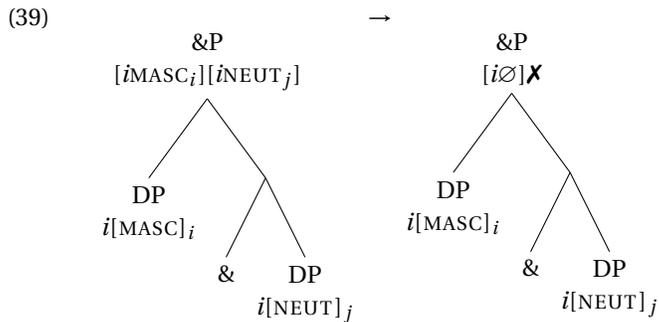
(38)



<sup>29</sup>See also Paparounas and Salzmann (this conference) on closest conjunct agreement in Greek, and Willer-Gold et al. 2016 on closest conjunct agreement with postverbal subjects in Slavic. The most uncontroversial example we have found that indicates that first conjunct agreement is not due to clausal reduction is in (ii) (based on a test from Munn 1999). *Mazi* 'together' might be preferred with syntactic plurality, and therefore it is better with a plural first conjunct. The reason we have not constructed a plural example in (36) is because the most convincing case for closest conjunct agreement with third person arguments would be with a singular conjunct (to rule out the possibility of resolution). See also Paparounas and Salzmann (this conference).

- |   |   |
|---|---|
| (i) Ego ke esis figate/*figate mazi<br>1.SG and 2.PL left.1.PL/left.2.PL together<br>'You and I left together.' | (ii) Figate esis ke ego mazi.<br>left.2.PL 2.PL and 1.SG together<br>'You and I left together.' |
|---|---|

- Percolation of interpretable features cannot yield a value appropriate for the (distributive) interpretation of the group; we conclude that interpretable unvalued features cause a crash.<sup>30</sup>



**Resolved adjectival agreement when the grammatical gender matches**

Our account allows for [H + I] when there is matched gender.

- While human-denoting nominals are subject to the requirement that they percolate their interpretable features, these features can be matched with the uninterpretable features.

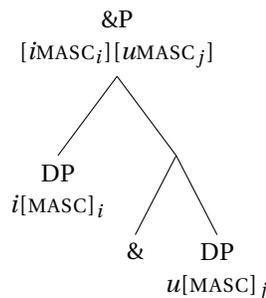
(40) O kleftis ke o pinakas ine afanti.  
 the.<sub>M.SG</sub> thief and the.<sub>M.SG</sub> painting are gone.<sub>M.PL</sub>  
 ‘The thief and the painting are gone.’

M σ + M ☹ = M

(41) I gineka ke i ombrela ine afantes.  
 the.<sub>F.SG</sub> woman and the.<sub>F.SG</sub> umbrella are gone.<sub>F.PL</sub>  
 ‘The woman and the umbrella are gone.’

F ♀ + F ☹ = F

- Percolation for [H + I] matched gender



→ Percolated interpretable features still satisfy Maximize Presupposition.<sup>31</sup>

- The ‘redundancy’ rule copies the *i*F value to the *u*F value to send to PF

(42) [iMASC\_i][uMASC\_j] → [uMASC\_i][uMASC\_j]

Our account fares better than that of Wechsler and Zlatić 2003 in that:

- As far as we can tell, if they allow [H + I] coordination at all, they predict default neuter for mismatched [H + I] coordination, whereas our account captures its ungrammaticality.
- They seem not predict [H + I] matching, also with fixed-gender nominals (see below).

<sup>30</sup>See e.g. Wurmbrand 2014:138-139, though see Kalin 2018:114, who treats interpretable unvalued features as acceptable for the interfaces.

<sup>31</sup>In the absence of conversion, we assume the gender interpretation at &P is existential.

## 7 [H + I] with fixed-gender nominals

The current account predicts that fixed-gender human nouns can percolate their *i*gender while inanimates percolate their *u*gender.

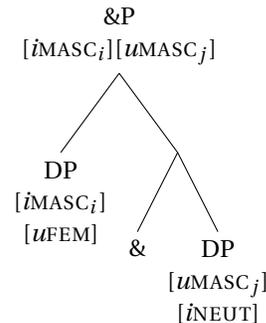
- This is borne out; it is actually possible for the *i*F of the human noun to match the *u*F of the inanimate noun.

(43) I megalofia ke o pinakas tu ine {afanti /\*afantes /\*afanta}.  
 the.F.SG genius and the.M.SG painting his are gone.M.PL /gone.F.PL /gone.N.PL  
 ‘The genius and his painting are gone.’ F  $\sigma$  + M  $\text{♂}$  = M

(44) To thima ke o pinakas tu ine {afanti /\*afantes /\*afanta}.  
 the.N.SG victim and the.M.SG painting his are gone.M.PL /gone.F.PL /gone.N.PL  
 ‘The victim and his painting are gone.’ N  $\sigma$  + M  $\text{♂}$  = M

(45) To thima ke i fotografia tis ine {afantes /\*afanti /\*afanta}.  
 the.N.SG victim and the.F.SG picture her are gone.F.PL /gone.M.PL /gone.N.PL  
 ‘The victim and her picture are gone.’ N  $\sigma$  + F  $\text{♀}$  = F

- Percolation for fixed-gender nominal with inanimate



## 8 Additional Predictions

We also capture that, when no gender features are present on the conjuncts – as in the case of coordinating two clauses – the result is grammatical (there is no clash)

(46) [[Oti tha vreksi] ke [oti tha chionisi]] ine idhio pithana.  
 that FUT rain.3.SG and that FUT snow.3.SG are equally possible.N.PL.NOM  
 ‘That it will rain and that it will snow are equally possible.’

Taking Closest Conjunct Agreement (CCA) to take place at PF<sup>32</sup> we also correctly predict that the interpretable value of a human noun is unavailable. We believe this also makes sense of interesting Backwards Control phenomena.<sup>33</sup>

<sup>32</sup>Bhatt and Walkow 2013; Smith 2015, 2017

<sup>33</sup>The approach to CCA as involving *u*Fs has been analyzed as requiring Long Distance Agreement between matrix T and embedded T (Alexiadou et al. 2012; Tsakali et al. 2017), which transfers interpretable features to matrix T. Strikingly, Backwards Control disallows verbal CCA in the embedded clause.

- (i) Ine eftixismeni pu vrikan o Janis ke i Maria sinergates.  
 are happy.M.PL<sub>(j+k)</sub> that found.3.PL<sub>(j+k)</sub> the.NOM John and the.NOM Maria collaborators  
 ‘John and Mary are happy to have found collaborators.’
- (ii) \*Ine eftixismeni/eftixismenos pu vrike o Janis ke i Maria sinergates.  
 is/are happy.M.PL<sub>(j+k)</sub>/happy.M.SG<sub>(j)</sub> that found.3.SG<sub>(j)</sub> the.NOM John and the.NOM Maria collaborators  
 ‘John and Mary are happy to have found collaborators.’

- (47) Ksafnika egine {\*aoratos /?aorati} i megalofia ke to vravio tu.  
 suddenly became.SG invisible.M.SG /invisible.F.SG the.F.SG genius and the.N.SG award his  
 ‘The genius and his award suddenly became invisible.’

## 9 Discussion and Conclusion

The coordination resolution system here – in conjunction with a dual feature system in which neuter is interpretable – captures underexplored patterns of coordination resolution with fixed-gender human nominals and inanimates.

- If on the right track, this work suggests that ‘default’ genders can be associated with semantic interpretations.
- As is well-known, coordination resolution is subject to inter-speaker variation (see specifically Marušić et al. 2015 on Slovenian; Chilla-Markopoulou 2003; Kazana 2011 on Greek) as well as cross-linguistic variation, depending in part on gender inventories and how animacy distinctions play a role in the gender system.
- A comprehensive characterization of the cross-linguistic picture would necessitate more specific information on the types of data discussed here, and awaits further research.
  - Our system allows for some variation (e.g. in feature representations, percolated values, etc.), while remaining restrictive.
  - We believe that the current account nevertheless generates predictions for other languages, especially for other three- or more-gender languages whose gender systems exhibit sensitivity to humanness/animacy distinctions (e.g. Latin and arguably Romanian, according to Corbett 1991:287-288; also Bantu (Corbett 1991; Wechsler 2008)).
- We are in the process of developing a survey to gain finer-grained information about Greek speaker variation.
  - We believe these survey data will offer further confirmation of some of these findings while homing in on variation between speakers.

**Thanks for listening!**

## References

- Adamson, Luke. 2019. Derivational trapping and the morphosyntax of inflectionlessness. Doctoral Dissertation, University of Pennsylvania, Philadelphia.
- Adamson, Luke. submitted. Split coordination with adjectives in Italian: An approach with multidominance and semantic agreement.
- Adamson, Luke, and Milena Šereikaitė. 2019. Gender representation and defaults in Lithuanian. *Glossa: a journal of general linguistics* 1–44.
- Alexiadou, Artemis, Elena Anagnostopoulou, Gianina Iordachioaia, and Michaela Marchis. 2012. In support of Long Distance Agree. In *Local modeling of non-local dependencies*, ed. Gereon Müller and Tibor Kiss, 55–81. Tübingen: Niemeyer.
- Alexiadou, Artemis, and Gianina Iordachioaia. 2014. Two syntactic strategies to derive deadjectival nominals. *Anglica Wratislaviensia–Acta Universitatis Wratislaviensis* 52:65–83.
- Anagnostopoulou, Elena. 2017. Gender and defaults. In *A Schrift to Fest Kyle Johnson*, ed. N. LaCara, K. Moulton, and A. Tessier, 23–31. Linguistics Open Access Publications.
- Anastasiadi-Symeonidi, Anna, and Despina Chilla-Markopoulou. 2003. Synchronic and diachronic tendencies in Modern Greek gender. In *Gender*, ed. Anna Anastasiadi-Symeonidi and Despina Chilla-Markopoulou, 13–56. Athens, Greece: Patakis Publishers.

- Bhatt, Rajesh, and Martin Walkow. 2013. Locating agreement in grammar: An argument from agreement in conjunctions. Natural Language & Linguistic Theory 31:951–1013.
- Bobaljik, Jonathan David. 2012. Universals in comparative morphology: Suppletion, superlatives, and the structure of words. Cambridge, MA: The MIT Press. URL
- Bobaljik, Jonathan David, and Cynthia Levart Zocca. 2011. Gender markedness: The anatomy of a counter-example. Morphology 21:141–166.
- Börjars, Kersti, and Nigel Vincent. 2006. Feature resolution and the content of features. In Architectures, rules and preferences, ed. A. Zaenen, J. Simpson, T.H. King, J. Grimshaw, Joan Maling, and C. Manning, 293–315. Stanford: CSLI Publications.
- Chilla-Markopoulou, Despoina. 2003. Gender and agreement in Modern Greek. In Gender, ed. Anna Anastasiadi-Symeonidi and Despoina Chilla-Markopoulou, 132–167. Athens, Greece: Patakis Publishers.
- Citko, Barbara. 2005. On the nature of merge: External merge, internal merge, and parallel merge. Linguistic Inquiry 36:475–496.
- Coon, Jessica, and Stefan Keine. 2020. Feature gluttony. Linguistic Inquiry 0:1–56.
- Corbett, Greville. 1991. Gender. Cambridge: Cambridge University Press.
- Dalrymple, Mary, and Ronald M Kaplan. 2000. Feature indeterminacy and feature resolution. Language 76:759–798.
- Despić, Miloje. 2016. Coordinating gender: What can coordinate structure agreement tell us about gender? Studies in Polish Linguistics 11:1–25.
- Ferrari-Bridgers, Franca. 2007. The predictability of gender in Italian. Lingua et Linguistica 1:146–167.
- Harley, Heidi, and Elizabeth Ritter. 2002. Person and number in pronouns: A feature-geometric analysis. Language 78:482–526.
- Heim, Irene. 1983. File change semantics and the familiarity theory of definiteness. Semantics Critical Concepts in Linguistics 108–135.
- Jakobson, Roman. 1984. Structure of the Russian verb. In Russian and slavic grammar—studies 1931-1981, ed. L.R. Waugh and M. Halle. Berlin: Mouton de Gruyter.
- Kalin, Laura. 2018. Licensing and differential object marking: The view from Neo-Aramaic. Syntax 21:112–159.
- Kavoukopoulos. 1996. Nouns, adjectives, and verbs: statistics and other remarks. In Questions of the Modern Greek language: A didactic approach, 7–16. Rethymnon (in Greek): University of Crete.
- Kazana, Despina. 2011. Agreement in Modern Greek coordinate noun phrases. Doctoral Dissertation, University of Essex, Essex.
- Kramer, Ruth. 2015. The morphosyntax of gender. Oxford: Oxford University Press.
- Kučerová, Ivona. 2018.  $\varphi$ -features at the syntax-semantics interface: Evidence from nominal inflection. Linguistic Inquiry 49:813–845.
- Landau, Idan. 2016. DP-internal semantic agreement: A configurational analysis. Natural Language & Linguistic Theory 34:975–1020.
- Mackridge, Peter. 1985. The Modern Greek language: A descriptive analysis of Standard Modern Greek. Oxford: Oxford University Press.
- Marušič, Franc, Andrew Ira Nevins, and William Badecker. 2015. The grammars of conjunction agreement in Slovenian. Syntax 18:39–77.

- Mirambel, André. 1959. *La langue grecque moderne: Description et analyse*. Paris: Libraire Klincksieck.
- Munn, Alan. 1999. First conjunct agreement: Against a clausal analysis. *Linguistic Inquiry* 30:643–668.
- Percus, Orin. 2011. Indexicality and compositional semantics. Lecture notes.
- Puškar, Zorica. 2017. Hybrid agreement: Modelling variation, hierarchy effects and phi-feature mismatches. Doctoral Dissertation, Universität Leipzig, Leipzig, Germany.
- Sadler, Louisa. 2006. Gender resolution in rumanian. In *Intelligent linguistic architectures: Variations on themes by Ron Kaplan*, ed. M. Butt, M. Dalrymple, and T.H. King. Stanford: CSLI Publications.
- Sadler, Louisa. 2011. Indeterminacy, complex features and underspecification. *Morphology* 21:379–417.
- Smith, Peter William. 2015. Feature mismatches: Consequences for syntax, morphology, and semantics. Doctoral Dissertation, University of Connecticut, Storrs, CT.
- Smith, Peter William. 2017. The syntax of semantic agreement in english. *Journal of Linguistics* 53:823–863.
- Sudo, Yasutada, and Giorgos Spathas. 2016. Natural gender and interpretation in Greek. Unpublished manuscript.
- Thorvaldsdóttir, Thorbjörg. 2019. Agreement with conjoined singular noun phrases in Icelandic. *Glossa: a journal of general linguistics* 4:1–53.
- Tsakali, Vina, Artemis Alexiadou, and Elena Anagnostopoulou. 2017. A new pattern of cp-transparency: implications for the analysis of backward control. In *40th GLOW Colloquium*. Leiden University.
- Tsimplici, Ianthi Maria, and Aafke Hulk. 2013. Grammatical gender and the notion of default: Insights from language acquisition. *Lingua* 137:128–144.
- Wechsler, Stephen. 2008. Elsewhere in gender resolution. *The nature of the word: Essays in honor of Paul Kiparsky* 567–586.
- Wechsler, Stephen, and Hyun-Jong Hahm. 2011. Polite plurals and adjective agreement. *Morphology* 21:247–281.
- Wechsler, Stephen, and Larisa Zlatić. 2003. *The many faces of agreement*. Stanford: Stanford University Center for the Study.
- Willer-Gold, Jana, Boban Arsenijević, Mía Batinić, Nermina Čordalija, Marijana Kresić, Nedžad Leko, Franc Lanko Marušić, Tanja Milićević, Nataša Milićević, Ivana Mitić, et al. 2016. Conjunct agreement and gender in south slavic: From theory to experiments to theory. *Journal of the Slavic Linguistics Society* 187–224.
- Wurmbrand, Susi. 2014. The merge condition: a syntactic approach to selection. In *Minimalism and beyond: Radicalizing the interfaces*, ed. Peter Kosta, Lilia Schürcks, Steven Franks, and Teodora Radev-Bork, 139–177. Amsterdam: John Benjamins.
- Wurmbrand, Susi. 2016. Formal and semantic agreement in syntax: A dual feature approach. In *Proceedings of the Olomouc Linguistics Colloquium*.
- Wurmbrand, Susi. 2017. Feature sharing or how I value my son. In *MIT Working Papers in Linguistics*, ed. C. Halpert, H. Kotek, and C. van Urk.

## Appendix

### Wechsler and Zlatić 2003

- According to the model in Wechsler and Zlatić 2003; Wechsler 2008, semantic and syntactic resolution are distinct
  - Semantic resolution applies when the conjuncts are humans

→ Syntactic resolution involves set intersection between the conjuncts and with the set of ‘semantic genders’ of the language

(48)	<i>Greek:</i>	$G_s = \{M, F\}$
	FEM: {F}	(< “women”)
	MASC: {M}	(< “humans”)
	NEUT: { }	(e-gender)
	FEM & FEM = FEM	$\{F\} \cap \{F\} \cap G_s = \{F\}$
	MASC & MASC = MASC	$\{M\} \cap \{M\} \cap G_s = \{M\}$
	NEUT & NEUT = NEUT	$\{ \} \cap \{ \} \cap G_s = \{ \}$
	MASC & FEM = NEUT	$\{M\} \cap \{F\} \cap G_s = \{ \}$

– Under this account, syntactic resolution perhaps applies for [HUMAN + INANIMATE] nominals, correctly deriving uniform conjunct effects, but fails to derive the unacceptability of mixed gender [HUMAN + INANIMATE] conjuncts (which should be neuter in this system)

(49)	$MASC_{hum} \& MASC_{inan} = MASC$	$\{M\} \cap \{M\} \cap G_s = \{M\}$
	$MASC_{hum} \& NEUT_{inan} = *$	$\{M\} \cap \{ \} \cap G_s = \{ \}$ (actual vs. predicted)

- More generally, a globally available ‘neuter’ default fails to capture the ungrammaticality of [HUMAN + INANIMATE] mismatch