Coordination Resolution in Three-Gendered Languages

Introduction: Many three-gendered languages have in common that some nouns are assigned *notional* gender – where the value of gender correlates with the interpretation of the noun – and some nouns are assigned *arbitrary* gender – where there is no such correlation (Kramer 2015 and references therein). Strikingly, however, such languages do not always pattern together in how they resolve agreement with gender-mismatched coordinated nominals (e.g. Corbett 1991, Wechsler 2008). If coordination resolution reflects feature representation, variation across languages with similar gender categories presents a puzzle.

Proposal: We hypothesize that resolved agreement with gender-mismatched human and inanimate coordinated nominals is predictable from how animacy is encoded within a language's gender system, in ways that are restricted by a feature-geometric account à la Harley and Ritter 2002. We demonstrate the success of this account for three languages of different IE branches: Greek, Icelandic, and BCS (Bosnian/Croatian/Serbian).

Data: All three languages have in common the categories of *neuter, masculine,* and *feminine*, as diagnosed by agreement patterns. They also share a gender-default value of neuter, which appears on adjectives agreeing with non-nominalized clausal subjects (see e.g. Adamson and Šereikaitė 2019). Despite their commonalities, these languages diverge in their agreement with gender-mismatched coordinated nominals. In Greek, mismatched humans trigger masculine resolved agreement (1) (see e.g. Adamson and Anagnostopoulou 2021), whereas mismatched inanimates trigger neuter (2). In Icelandic, mismatched humans (3) and mismatched inanimates trigger neuter (4) (e.g. Wechsler 2008). In BCS, mismatched humans (5) and mismatched inanimates trigger *masculine* agreement (Despić 2016, Willer-Gold et al 2016); strikingly, even matched inanimates trigger masculine (6).

(1) O andras ke i gineka ine eksipni. 'The man and the woman
the.M.SG man and the.F.SG woman are intelligent.M.PL are intelligent.'

(2) O pinakas ke i karekla ine vromika. 'The blackboard and the chair
the.M.SG blackboard and the chair are dirty are dirty.'

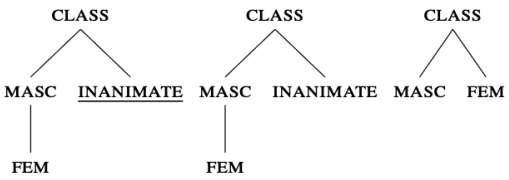
(3) Drengurinn og telpan eru þreytt. 'The boy and the girl are tired.'
boy.the.M.SG and girl.the.F.SG are tired.N.PL (Wechsler 2008:569)

(4) Frægð og frami eru tvíeggjuð 'Fame and success are double-edged.'
fame.F.SG and success.M.SG are double.edged.N.PL (Thorvaldsdóttir 2019:2)

(5) Jedan dečak i jedna devojčica su došli 'One boy and one girl arrived.'
One.M.SG boy and one.F.SG girl are arrived.M.PL (Despić 2016)

(6) Naše selo i celo jedno brdo su izgoreli.
our village.N.SG and whole one hill.N.SG are burned.M.PL
'Our village and one whole hill were burned in the fire.' (Despić 2016)

Analysis: We situate our analysis of gender representation within the feature-geometric system of Harley and Ritter 2002 (HR2002). We permit some variation for the structure of gender features, consistent with HR2002's observation that gender systems are cross-linguistically more variable than number and person systems. The geometries below reflect structures in Greek, BCS, and Icelandic, respectively, below the organizing node CLASS; we motivate the structures below. Following HR2002, we take one option, instantiated in Greek, to be that INANIMATE is a default interpretation of CLASS (as notated by underlining), with feminine as a dependent of masculine. An alternative, instantiated by BCS, is that both daughters masculine and inanimate can be activated simultaneously, comparable to HR2002's representations for first-person inclusive and dual number (with a corresponding absence of default interpretation; see HR2002:498). In the third option, instantiated by Icelandic, MASC and FEM are both daughters to CLASS, with (in)animacy



absent from the hierarchy. For all three, we take the category 'neuter' to correspond (at maximum) to the root node CLASS, which explains why in all three languages, neuter agreement occurs in the absence of gender features (e.g. with clausal subjects, expletives, etc.).

We take Greek (and Latin) to instantiate the unmarked case for three-gender systems, whereby the dependency between FEM and MASC reflects the subset relationship in their semantic interpretation, with MASC being interpreted as 'animate/human', while FEM bears a more marked interpretation, referring to women (see e.g. Sudo and Spathas 2020). We take the same basic relations to hold in BCS; however, in BCS, the representation of inanimate semantics requires simultaneous activation of MASC and INANIMATE, which we propose to link to the observation that the language systematically distinguishes masculine animate and masculine inanimate case morphology (e.g. Corbett 1991, Puškar 2018). In our system, this means that neither MASC nor INANIMATE can be a default interpretation of CLASS (see HR2002 on contrastiveness). Turning to Icelandic, we propose that no (in)animate node is present. This means there is never the option for mismatched coordination to take masculine agreement, as feature intersection for mismatched gender will yield CLASS. We take this to correlate with the use of neuter in mixed-gender environments such as plural pronouns, which are neuter for gender-mixed groups (Corbett 1991:Ch. 9), and dyadic kinship terms, where neuter is used for gender-mixed pairs, such as *feðg-in* "father.daughter-def" and *mægð-in* "mother.son".

To account for feature resolution, we assume a distinction between interpretable and uninterpretable gender features along the lines proposed for hybrid agreement, such that a nominal can bear both at the same time (Wurmbrand 2017). We take notional gender to be a distributive property of a group (e.g. Wechsler 2008), and correspondingly model resolution as the intersection of interpretable gender features (cf. Börjars and Vincent 2006) (with principled exceptions we discuss in the talk). This is most straightforwardly illustrated by the Greek pattern (1-2), where MASC is the feature intersection for mismatched humans and INANIMATE (/CLASS) for mismatched inanimates. For BCS, mismatched humans and mismatched inanimates yield masculine agreement, because MASC is present for both animates (plain MASC) and inanimates (simultaneous activation of MASC + INANIMATE). In Icelandic, intersection of mismatched humans yields CLASS. On the other hand, given the absence of INANIMATE, there is no option for resolution with mismatched inanimates; therefore, a default neuter form is inserted at PF whenever the uninterpretable genders of the inanimates do not match.

Further Predictions: Our account makes correct predictions for agreement when a gender-mismatched human and inanimate nominal are coordinated with each other in each language (not shown presently). In Greek, agreeing with a coordinated masculine human and neuter inanimate is ungrammatical, because the two only share the feature CLASS, whose interpretation is 'inanimate'. For BCS, we correctly predict that this coordination is possible with masculine agreemen, because MASC is active for both animates and inanimates. A more complex set of predictions is generated for Icelandic based on the relationship between resolution and PF values, a relationship which we elucidate in the talk.

Implications: In addition to capturing patterns of variation in coordination resolution, our account offers a way to link the choice of resolved agreement to broader properties of a language's gender system, with the representation of animacy being especially crucial. Our system can also provide a principled explanation for other properties of gender systems cross-linguistically, including the absence of animacy-sensitive DOM in Germanic languages, which can be linked to the observation that the Icelandic pattern was also found in Old High German and Middle High German (Corbett 1991:283, Corbett 2006:245fn6), suggesting animacy was not an active feature in the history of Germanic, unlike in e.g. Romance.

Select references: Adamson, L. and M. Šereikaitė, 2019. Gender representation and defaults in Lithuanian. Börjars, K. and N. Vincent. 2006. Feature resolution and the content of features. Corbett, G. 1991. Gender. Despić, M. Coordinating Gender: What Can Coordinate Structure Agreement Tell Us about Gender? Kramer, R. 2015. The morphosyntax of gender. Harley, H. and E. Ritter. 2002. Person and number in pronouns: A feature-geometric analysis. Wurmbrand, S. Formal and semantic agreement in syntax: A dual feature approach. Wechsler, S. "Elsewhere" in gender resolution. Puškar, Z. 2017. Interactions of gender and number agreement: Evidence from Bosnian/Serbian/Croatian.