Conjoined noun phrases in Icelandic: The role of conjunct gender and working memory in default agreement

Thorbjorg Thorvalsdóttir & Anton Karl Ingason
University of Iceland

This research examines the production of a neuter plural default with M+M and F+F conjoined noun phrases in Icelandic. Results of an agreement production experiment show influences of grammatical gender as well as individual capacities of working memory.

**Background** In full agreement (or resolution) with Icelandic conjoined noun phrases, it has been presented as fact that two masculine conjuncts yield M.PL agreement and two feminine conjuncts yield F.PL agreement (Corbett 1991, Friðjónsson 1991, Wechsler 2009). Consider the example in (1). In contrast, Þorvalsdóttir (2017) reports that two masculine conjuncts or two feminine conjuncts often trigger neuter plural agreement on a predicate adjective, as exemplified by (2), and her results indicate that the gender (M+M vs. F+F) and animacy of the conjuncts may play a role.

The use of a default plural form with conjoined noun phrases is not exclusive to Icelandic. It has been reported on in e.g. Old High German (Hock 2009), Slovenian (Marušič et al. 2015:48), and Bosnian/Croatian/Serbian and Slovenian (Willer-Gold et al. 2016:13). Willer-Gold et al. (2016) proposed that default agreement and full agreement should be kept apart as two different agreement strategies. They argue that the default (M.PL in the Slavic languages) is a fixed value for agreement with the whole conjoined noun phrase when individual conjuncts are not evaluated. Furthermore, studies of agreement errors suggest that cue-based retrieval from working memory – a limited storage system for information processing (e.g. Baddeley 2003; Cowan 1999) – may be central to agreement production (Badecker & Kumiñiak 2007; Lorimor, Jackson & van Hell 2018).

**RQ and hypotheses** This research aims to gain more understanding of what determines when gender features of individual conjuncts are retrieved in the computation of agreement and when they are not. We examine whether the gender of conjuncts, animacy, and working memory span affect the use of N.PL with conjoined subjects in Icelandic as opposed to full agreement, that is, M.PL with M+M or F.PL with F+F. We expected N.PL to be more likely with F+F (vs. M+M) conjoined noun phrases, with artifacts (vs. animals), and finally that N.PL agreement would be more likely for participants with lower working memory spans.

**Participants and methods** 27 native speakers of Icelandic (12 m, 15 f) ages 13-30 completed a verbal agreement production task. The test items were two-picture pairs depicting either inanimate objects or animals, contrasting M+M or F+F combinations. A measurement of working memory was obtained for each speaker with a digit span backwards task. We used R (R core team, 2018) for data processing and lme4 (Bates, Maechler, Bolker & Walker 2015) to perform a generalized linear mixed model analysis.

**Results** The results reveal a clear conjunct gender effect: Two feminine conjuncts are significantly more likely to trigger N.PL default agreement than two masculine conjuncts. No effects of animacy were found, while working memory span significantly predicts the use of N.PL agreement. Speakers with lower working memory are more likely to use N.PL in agreement with M+M and F+F conjoined noun phrases in Icelandic.

In this talk, we will consider possible explanations for the difference between F+F and M+M agreement controllers and how this may interact with cue-based retrieval from working memory. This research extends the findings of Þorvalsdóttir (2017) to verbal agreement production and connects the use of a default form in agreement to working memory span and grammatical gender. This research presents new experimental data that has implications for the understanding of conjoined noun phrase agreement and processes of feature retrieval.
Examples

(1) Diskurinn og bollinn eru bláir.
plate.the.M.SG and cup.the.M.SG are blue.M.PL
‘The plate and the cup are blue.’

(2) Diskurinn og bollinn eru blá-Ø.
plate.the.M.SG and cup.the.M.SG are blue.N.PL
‘The plate and the cup are blue.’

Graphs

References


