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## Gender Impoverishment, with comments on the 'Y' problem

Despite fairly extensive descriptions (Corbett 1991; 2013a; b; c; Siewierska 2013) and some recent work (e.g., Carstens 2010; Sigurðsson 2015), the grammatical category of gender, aka noun class, remains relatively undertheorized in generative morphosyntax. In this paper, I consider gender within the framework of Distributed Morphology (DM, Halle & Marantz 1993; Embick & Noyer 2007), focusing in particular on the idea that roots are acategorial, with no phonological or semantic features in the pre-syntactic Formative list, distinguished in syntax only by a unique (numerical) index that links root terminals to their exponence in the Vocabulary list at PF and their interpretation in the Encyclopedia list at LF (Harley 2014; Nevins 2015).

The first part of the paper deals with gender Impoverishment, which provides evidence that gender features must be present in syntax and at PF. Czech adjectivals agree in gender with 1st- or 2nd-person (1/2) subjects, as in Slavic, Romance, Germanic, and other languages, even though these 1/2 pronouns lack overt gender distinctions. Parrott (2015) argues for Nevins's (2011: 430) suggestion that gender agreement with 1/2 subjects results from markedness-driven Impoverishment (Nevins & Parrott 2010). Impoverishment must take place after agreement with the gender feature of the pronoun has been established in the syntax. Because gender features are inherently marked, their occurrence on the same terminal node with the marked feature values for 1/2 induces post-syntactic deletion of gender. Not only does a markedness-driven gender Impoverishment analysis give a plausible explanation of gender agreement with 1/2, but the approach can be fruitfully extended to account for possessive pronoun gender agreement patterns. However, there is a perplexing twist: unlike other Slavic languages, Czech 3rd-person possessive pronouns show gender distinctions in the marked feminine, but not the unmarked masculine, and in the marked oblique cases, but not in the unmarked nominative case. This raises interesting questions for morphosyntactic theory, especially how to account for such rare but attested cases of apparent Impoverishment without markedness.

I conclude the paper with some comments on what may be called the 'Y' problem. Crosslinguistically, nouns are 'assigned' a gender on the basis of the LF semantics of the nominal root, the PF morphophonology of the nominal root, or a combination of semantic and formal properties (Comrie 1999; Corbett 1991; 2013c). The gender Impoverishment analysis shows that gender features must be present in syntax, and it is obvious that gender features are present at PF. In addition to semantically based assignment, it seems reasonable to suppose that gender features are present at LF, given that gender can at least sometimes license semantic entailments. Given a Minimalist (Chomsky 2013), DM architecture as sketched above, we are faced with the serious but heretofore overlooked issue of how to associate gender features with semantic and phonological features when LF and PF have no access to each other after spellout, and roots have no semantic or phonological features prior to syntax. Partially following Kramer (2014), I suggest that gender features are bundled with categorizing little n terminals in the Formative list; Merge can freely combine gendered little n terminals with indexed roots or complex terminals in syntax. Contra Kramer and others, I further suggest that gender features on n are in fact interpretable at LF, just in case they are specified in a root's Encyclopedia entry. Gender features are drawn from a set of universal grammatical features that plausibly includes [±animate], [±human], [±female],

[±male], [±animal], [±plant], or [±edible], inter alia. The bundling of these features with categorizing n terminals in the Formative list is an acquisition task, and the child must also learn which indexed root are Merged with which gendered n terminals by attending to externalized forms at PF, as well any interpretations at LF. From the perspective of DM, the 'Y' problem is treated the same way for gender as it is for roots, namely, without a "lexicon".

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