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Syntactic variation meets PF uniformity: Underspecification
of nominal functional categories



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The Slavic diminutive (DIM) morpheme (e.g., Czech *-ek.M.SG*, *-ka.F.SG*, *-ko.N.SG* etc.; henceforth, **K**) is homophonous with different morphemes: E.g., in Polish and Czech, the morpheme *-ka* is ambiguous between a DIM derived from a feminine (FEM) noun, a morpheme deriving socio-biological FEM from a masculine (MASC) noun, a nominalizer, and a group forming morpheme. In addition, DIMs can yield a degree interpretation, and obtain additional pragmatic readings. A very similar range of nominal functions and interpretations is found in Semitic. The feminine morpheme (**F**) displays a similar range of functional and semantic interpretations, e.g., in Moroccan and Levantine Arabic (LA), and Hebrew, with two important differences: **F** individuates, and cannot be a nominalizer. We ask: How does functional/interpretational variability within the nominal domain map to PF uniformity? We argue for a class of underspecified functional heads (construed as variables; Borer 2005, Acquaviva 2018) whose functional interpretation is a function of their syntactic position (akin to *i** of Wood & Marantz 2015). The underlying syntactic underspecification triggers uniform PF realization despite varied syntactic/semantic behavior, modulo independent differences of the surrounding nominal structures which account for the variation between Slavic and Semitic.

Specifically, the proposal builds on work arguing for a connection between gender and DIM as classifiers (Zabbal 2002, Fassi Fehri 2003, Borer 2005) and argues that **K** and **F** are morphological realizations of a feature bundle corresponding to a nominalizing head (*n*), which is primarily based on gender. Different functions and interpretations arise from different attachment sites of *n* in the extended nominal domain, instead of a series of semantically specified functional heads (e.g., Fassi Fehri 2016, 2017, 2018a,b), or distinct morphemes (e.g., Borer & Ouwayda 2010): A given interpretation arises in a specific structural environment, modulo language specific lexical content and structural economy.

Facets of gender: SOCIO-BIOLOGICAL GENDER: **K** and **F** systematically derive female-denoting nouns from MASC nouns, (1). The reverse pattern, i.e., productive formation of male counterparts to female-denoting individuals, is not attested. [Throughout, we demonstrate the patterns only on Czech and LArabic.]

- (1) a. diplomat ‘diplomat.M.SG’ → diplomat-ka ‘diplomat-**K**:F.SG, a female diplomat’ CZ
b. far ‘mouse.M.SG’ → far-a ‘mouse-**F**:SG, she mouse’ LA

CATEGORY CHANGE: Unlike **F**, **K** functions as a nominalizer. In noun-to-noun conversions, the derivation of grammatically FEM nouns from a MASC base is fully productive, and if plausible, systematically ambiguous with a socio-biological formation [diplomat.M.SG → diplomat-ka ‘diplomat-**K**:F.SG; a briefcase’ or ‘a female diplomat’]; the derivation of grammatically MASC nouns from a FEM base is less productive [kûra ‘tree-bark.F.SG’ → kor-ek ‘bark-**K**:M.SG, cork’], as is the derivation of FEM nouns from a FEM base [kniha ‘book.F.SG’ → kníž-ka ‘book-**K**:F.SG, a book (less formal)’]. Neuter derivational bases are restricted to a handful of nouns [rameno ‘shoulder.N.SG’ → ramín-ko.**K**:N.SG ‘hanger’]. Furthermore, **K** derives nouns from adjectives [sodová (voda) ‘soda.ADJ (water)’ → sodov-ka ‘soda-**K**:F.SG, pop’], and verbs [doplňit ‘to complement’ → doplň-ěk ‘complement-**K**:M.SG, a complement’]. (Dokulil et al, 1986)

DIMINUTIVES: DIM formation by **K** is highly productive: **K** displays the gender value of its base noun, (2-a). Semitic employs two DIM formation strategies (e.g., DeBelder et al 2019): a stem-internal one, (2-b), and a stem external one (with **F** as the suffix), (2-c), often accompanied by changes within the nominal stem.

- (2) a. jablíč-ko ‘apple.N.SG-**K**:N.SG; a small apple,’ jam-ka ‘pit.F.SG-**K**:F.SG; a small hole,’ stol-ek ‘table-**K**:M.SG; a small table’ CZ
b. arnab ‘rabbit.M.SG’ → arnub ‘rabbit.DIM, a small rabbit’ LA
c. foren ‘oven.M.SG → forneyy-i ‘oven-**F**:F.SG; a small oven’ LA

DEGREE & PRAGMATIC READINGS: Both **K** and **F** DIM morphemes can double. In Slavic, this involves doubling **K**, (3); Semitic double-formation combines the stem-internal and the stem-external derivation, (4). Doubling yields additional semantic (higher degree of a small size) and pragmatic readings (affectionate; e.g., Jurafsky 1996, Dressler & Barbaresi 1994, Fassi Fehri 2017).

- (3) stol-ek ‘table-**K**:M.SG, a small table’ → stol-eč-ek ‘table-**K**:M.SG-**K**:M.SG, a very small table’ CZ

(4) arnab ‘rabbit’ → arnub ‘rabbit.DIM’ → arnub-i ‘rabbit.DIM-F:SG; a cute small rabbit’ LA
 INDIVIDUATION: **F** productively individuates kind nouns, (5-a). Individuation of mass nouns is always accompanied by an additional shift in lexical semantics, (5-b). In contrast, **K** does not individuate. In Slavic, both DIM and its base are systematically ambiguous between mass and count interpretations.

- (5) a. samak ‘fish’ → samak-i ‘fish-F:SG, a piece/unit of fish’
 b. sokkar ‘sugar.MASS’ → sokkareyy-i ‘sugar-F:SG; a small sugar bowl’

GROUP FORMATION: In Semitic, **F** productively derives group formation (Borer 2005, Ouwyada 2014, Kramer & Winchester 2018), (6). In Slavic, group formation by **K** is restricted to numerals, (7-a), quantifiers (Veselovská 2018), (7-b), and to a productive formation of pluralia tantum (Dokulil et al. 1986), (7-c).

- (6) mtdyyen ‘religious.M.SG, a believer’ → mtdyn-i ‘religious-F.SG, a religious group’ LA
 (7) a. dvě děvčata ‘two girls’ → dvoj-ka děvčat ‘two-K:F.SG girls.GEN, a group of two girls’ CZ
 b. pár děvčat ‘a few girls’ → pár-ek děvčat ‘couple-K:F.SG girls.GEN, a group of two girls’ CZ
 c. běž-ky ‘run-K:PL, cross-country skis’, sjezdov-ky ‘go_down-K:PL, downhill skis’ CZ

Gender as n : We argue that **K** and **F** are instantiations of an n head; specifically, an n head based on a gender feature (e.g., Kramer 2015). The difference between Slavic and Semitic is in the height of attachment of n (henceforth, $n_{K/F}$) – effectively, a light noun (e.g., Wiltschko 2008) –; differences within the pattern follow from structural economy, and type of gender feature valuation on n . A specific interpretation arises during spell-out, when underspecified functional heads (here, n) are associated with distinct functional meanings based on their structural environment (Wood & Marantz 2015). **CATEGORY CHANGE:** Slavic n_K merges with the previously merged root and category head: [n_K [CAT \sqrt{root}]]. For this to obey structural economy, the projection properties of the new formation must differ from the primary merge one. The economy condition is satisfied when CAT is not n : in which case, the structure derives a category change. Both gender and meaning of the derived nominal is idiosyncratic. Technically, n_K is a functional root (Creemers et al, 2019), and idiosyncratic gender is an indexical gender associated with nominal roots (Acquaviva 2008, 2014). In contrast, Semitic roots are category-neutral (Arad 2003, Kastner 2017) and lack indexical gender (Semitic nominals can be genderless). Analogically, there is no gender-based functional root that could yield a category change. **DIMINUTIVES:** Not all instances of gender are indexical, but instead can enter the structure as a binary feature of n . In Slavic, the gender feature is by default unvalued, and obtains a value only post-syntactically from the indexed feature of the root. When n_K attaches to [$n \sqrt{root}$], the gender feature of n_K gets valued by agree with n , thus deriving the gender properties of Slavic DIM. In contrast, in Semitic, n comes with a valued gender feature (\pm gender; Kramer 2014). For [n_F [$n \sqrt{root}$]] to be felicitous, the feature of n_F must be [+gender] (FEM), to be featurally distinguishable from [$n \sqrt{root}$]. We argue that the default interpretation of this light noun formation is a DIM, construed as a bound interpretation (akin to nominal aspect). **PRAGMATIC READINGS:** A double DIM formation obeys structural economy only if it yields additional interpretations (Sichel & Wiltschko 2018). Double DIM thus yields a degree (based on the bounded nominal interpretation) or a pragmatic interpretation (affection). **BIO-SOCIOLOGICAL GENDER:** Valued gender can come to the derivation as an interpretable feature on D (Steriopolo & Wiltschko 2008, Kučerová 2018, Sigurðsson 2019), and agree with the unvalued gender of $n_{K/F}$, deriving the bio-sociological gender of **K** and **F**, (1). **GROUP FORMATION:** The light noun configuration offers itself to a partitive-like function, yielding a group reading. Semitic nominals can lack the individuation layer (e.g., Déprez 2005, Acquaviva 2018 for an argument that kind nouns lack NumP): when n_F attaches to a non-individuated structure, the interpretation must be that of the whole, with no subparts, (6). In Slavic, a group interpretation arises only in the context of structures that lack individuation, i.e., quantifiers, numerals, and pluralia tantum, (7). **INDIVIDUATION:** Semitic has a class of genderless unindividuated nominals. When n_F attaches to the primary merge of such a nominal, the interface interprets **F** as an individuating functional head (Borer’s DIV), deriving (5-a). This interpretation is absent in Slavic because the equivalent of a Number projection is always present, and the individuating interpretation is excluded by structural economy.