Syntactic Parallels between Verbal and Nominal ϕ-Morphology in (Classical) Arabic

Three parallels in the expression of person/definiteness-, gender- and plural-morphology ('ϕ-morphology') between the nominal and verbal domains in Classical and Modern Standard Arabic are presented: (i) The same morphs express ϕ-morphology in the verbal and nominal system. (ii) The morphs appear in the same order in both systems. (iii) There is a second position effect in the placement of ϕ-morphology in definite common nouns and imperfective verbs on the one hand, but not in pronouns and perfective verbs. These parallels are explained by syntactic notions of hierarchical structure and movement. The proposal thus offers a new line of evidence for parallelism between the clausal and the nominal domain. **Gender Morphs.** Feminine gender is fairly consistently marked by /t/ in third person. Common nouns mark it by -*at* and 3SG.F-forms of the verb contain /t/, suffixed in the perfective and prefixed in the imperfective. In other contexts, the contextual allomorphs /n(a)/ and /i/ appear, as summarized in (1). Masculine is only marked in plural forms by /m/, when the gender morph is local to a person morph. This is the case in pronouns and perfective verbs where there is a person morph in the sequence of ϕ-morphs that /m/ appears in, but not in the imperfective, where the person morph precedes the verb, or 3PL perfective, where there is no person morph at all. **Number Morphs.** The situation for plural is more complex. Sound, plural common nouns always have lengthening of a segment (M: -*u:/-i:*, F: -*a:t*). Lengthening also appears in plural masculine verbal agreement (-*u:* in 3PL, 2PL imperfective), the 1PL forms -*na:* and the feminine plural form -*n:a* (2/3F.PL pronoun and perfective verb). The absence of lengthening in masculine forms like (=)*hum*/=*kum* is explained by phonotactic restrictions. Lengthening of the vowel (e.g. **hu:m*) would create an illicit superheavy syllable and lengthening of the consonant (e.g. **hum:*) would create an illicit coda geminate. Thus the underlying plural morph /:/ never surfaces in these forms. Likewise, the short -*na* in 3PL.F of the perfective and 2/3PL.F imperfective follows from phonotactics. The underlying PL-F /:-n-a/ would create a geminate onset when combined with a consonant-final root, which is banned generally. When combined with a vowel final root, the resulting sequence would be V:C:V, which is highly restricted in Classical Arabic [4]. Questions remain about the absence of lengthening in the 1PL prefixal *na*-, but otherwise the lexical insertion rule in (2) is sufficient. Across verbs and nouns, the plural morph precedes the gender morph: PL(URAL)-GEN(DER). In sound feminine plural -*a:t*, the plural morph /:/ precedes the gender morph /t/, as the reverse would lead to phonologically possible but unattested *-*a:t*(-*u/-i*). Likewise, in the feminine forms in -*n:a*, the lengthening of the plural appears on the gender morph /n/, rather than the vowel that follows it.

(1) a. $[+\text{F}] \leftrightarrow /\text{n}/ \setminus \left[\begin{smallmatrix} \text{PL} \\ -\text{AUTH} \end{smallmatrix}\right]$ c. $[+\text{F}] \leftrightarrow /\text{t}/$ (2) $[\text{PL}] \leftrightarrow /\text{:}/$

     b. $[+\text{F}] \leftrightarrow /\text{i}/ \setminus \left[\begin{smallmatrix} +\text{PART} \\ -\text{AUTH} \end{smallmatrix}\right]$ d. $[-\text{F}] \leftrightarrow /\text{m}/ \setminus \left[\begin{smallmatrix} \pm\text{PART} \\ \pm\text{AUTH} \\ \text{PL} \end{smallmatrix}\right]$

Person Morphs. Person shows more limited parallelism in forms. Second person is consistently marked with /t/ on free pronouns and verbs. Likewise, 1PL-forms consistently contain /n/. For third person and 1SG, however, pronouns, perfective and imperfective verbs all use different morphs. The facts for morpheme-order on the other hand are clear: Where person markers can be confidently identified (3: *h*, 2: *t-/k-*, 1PL: *n-*), they precede all other ϕ-morphs, showing an order PER(SON)-PL-GEN. The same is visible in definite nouns: The definite marker *l-* precedes both gender and number morphs. As person and definiteness originate in the same syntactic projection [3], definite nouns show the same order of morphemes as verbs and pronouns. **Parallel organization of ϕ-morphs.** There are two levels of parallelism. The first is the constant linear order of the morphs (PER-PL-GEN) discussed above. Secondly, definite NPs and imperfective verbs show a second position effect: The verb or noun is obligatorily preceded by a morph from the ϕ-system. In definite nouns, this is the definite marker /l/ originating in D, like person. In imperfective verbs, it is the leftmost of the sequence of ϕ-morphs that is present. This can be a person morph (1PL /n/, 2 /t/), or, as I will argue, a gender morph (3F.SG /t/), or two different kinds of default morphs (1SG /ʔ/, 3 /j/). In perfective verbs on the other hand, all ϕ-morphology follows the verb. Likewise, in some of the free pronouns all ϕ-morphs follow the non-ϕ-morph *ʔan-*. Thus nominal and verbal categories are split into types that show a second position effect (definite nouns, imperfective), and those that don't (perfective, pronouns). **Syntax explains parallel organization of ϕ-Morphs.** The order PER/DEF-PL-GEN in nouns and pronouns follows from the hierarchical relations of the syntactic heads that introduce them [3]. The parallel with the verbal domain follows if agreement heads for person, number and gender are likewise hierarchically organized such that person is above plural and both are above gender. The similarity between pronouns/perfective and nouns/imperfective with respect to the second position effect follows from head movement. [2] shows that pronouns always move to D, but common nouns do not. [1] argues that perfective verbs move to a higher projection in the clause than imperfective ones. The absence of a second position effect with pronouns and perfective verbs is explained by head movement to a higher position than with nouns and imperfective in both contexts.

[1] E. Benmamoun (2000) *The Feature Structure of Functional Categories* · [2] G. Longobardi (1994) *Reference and proper names*. Linguistic Inquiry 25· [3] E. Ritter (1995) *On the syntactic category of pronouns and agreement*. Natural Language & Linguistic Theory 13· [4] W. Wright (1874) *A Grammar of the Arabic Language*, vol. 1.