## View from Turkish: Morphology as Executive, Phonology as Executor Eyüp Bacanlı, Darin Flynn, and Amanda Pounder | University of Calgary

This paper addresses a fundamental question in linguistic theory: In a modular grammar, which component is responsible for morphologically conditioned phonology (MCP)? Unsurprisingly perhaps, phonologists have long ascribed to the phonological component an ability to access morphological information (Chomsky & Halle 1968 et seq.). For instance, an optimality-theoretic constraint on the output of phonology can be indexed to particular morphological domains (McCarthy & Prince 1993; Jurgec & Bjorkman 2018), classes (Itô & Mester 1995, 2001; Smith 2001), or morphemes (Pater 2000, 2007, 2009; Becker & Potts 2011; Gouskova 2012). The following presumption is apparent: "no other cognitive module in [a generative, innatist, modular framework] is responsible for alternations—the [phonological component] bears all responsibility for generating them ... [T]he term 'alternation' here refers to any pair of morphologically related forms that give insight into the input, as determined by a particular theory (e.g. OT, SPE)" (de Lacy 2009:49).

Again unsurprisingly, morphologists beg to differ, e.g.: "The morphology is the executive, phonology the executor" (Pounder 2000:36). Our paper defends the latter view by examining diminutive formation in Turkish, a textbook case of MCP (Ketrez & Aksu-Koç 2007). Most productive is -CIK suffixation, so-written because it has "16 possible forms" (ib., p. 290), due to very general phonological processes in Turkish, listed in (1). Crucially, -CIK suffixation is accompanied by additional, less general phonological processes depending on the diminutivized base (ib.). For instance, -CIK is accompanied by the processes in (2) when the base is an adjective belonging to the lexico-semantic class "Slight".

- (1) a. <u>Vowel harmony (VH)</u>:  $k \phi pry-dy \hat{k}$  'bridge-DIM';  $k \alpha z-dy \hat{k}$  'goose-DIM'
  - b. <u>Voicing assimilation</u>: *ip-tfik* 'string-DIM'; *tabak-tfik* 'plate-DIM'; *inek-tfik* 'cow-DIM'
  - c. <u>Prevocalic k lenition</u>: kaz-dzi:-im 'goose-DIM-1s.POSS'; inek-ts:-im 'cow-DIM-1s.POSS'
- (2) a. <u>Initial stress</u>: *kisá* 'short' → *kísa-dʒik*; *indʒé* 'thin' → *índʒe-dʒik* 
  - b. <u>Stem-final k deletion</u>: kytfýk 'small'  $\rightarrow kýtfy-dzyk$ ; ufák 'small'  $\rightarrow úfa-dzik$
  - c. Vowel insertion with (C)VC roots: az 'little'  $\rightarrow \acute{a}zidsik$ ; dar 'narrow'  $\rightarrow \acute{a}dradsik$

Inkelas (2011:68) draws a distinction between regular phonological processes like VH ("a very general rule ... for the vowels of most suffixes") and morphologically conditioned ones like stem-final k deletion in (2b); cf. (1b). This distinction matters little in practice, if the phonology is fully responsible for both kinds of alternation. We would claim that not even VH is part of the active phonology of Turkish. VH is a static fact of most polysyllabic roots and affixes, yet disharmonic morphemes abound, e.g.,  $\underline{anne}$  ...  $\underline{kalk}$ - $\underline{abil}$ - $\underline{di}$  'mother ... managed to stand up' (Göksel & Kerslake 2005:24). The strongest evidence that VH is an active process comes from vocalic alternations in suffixes. But VH is not obligatory in concatenation either: at least a dozen suffixes never show VH (ib.). Similarly, the phonological processes in (1b, c) are widespread but not obligatory in Turkish suffixation, and conversely, the restricted processes in (2a–c) accompany other word-formation processes. All represent morphologically conditioned phonology, and we propose that it is the morphological component that controls them.

In conclusion, (1a–c) likely began as phonologically motivated processes (Dressler 1985:231), but eventually their phonological raison d'être became obsolete as their effects turned into static facts about Turkish words. In the meantime, their alternations became associated with concatenation, a mainstay in an agglutinative language. Morphology is unlike other modules of grammar in requiring access to all of syntactic, semantic, and phonological properties to function, as (2) illustrates. One of the roles of morphology is to give commands to the phonology during word-formation, such as "Carry out VH!" The phonology thus need not account for why such a command does not accompany certain suffixes, why it does not apply to all roots, nor why other commands only accompany a few suffixes. More generally, there is no need for phonology to access morphological information in a modular model of grammar.

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133.

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