



THE ROLE OF MORPHONOLOGY IN MORPHOLOGICAL LANGUAGE TYPOLOGY

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Abstract. This paper examines the role of morphonology—the interface between phonology and morphology—in the morphological typology of languages. By analyzing how morphonological processes shape word forms in agglutinative, fusional, and isolating languages, the paper underscores morphonology's importance in both synchronic analysis and typological classification. The study draws from cross-linguistic examples and theoretical insights to argue that morphonology plays a crucial role in explaining phonological alternations conditioned by morphological environments.

Keywords: *mophonology, morphological typology, phonology, morphology, agglutinative languages, fusional languages.*

Introduction. Linguistic typology seeks to classify languages based on structural features such as word formation, syntactic patterns, and phonological systems. Within morphological typology, languages are commonly categorized as isolating, agglutinative, fusional, or polysynthetic, depending on how they construct words and express grammatical relationships. While morphology is traditionally analyzed separately from phonology, the field of morphonology bridges these domains by examining how phonological rules are conditioned by morphological structure.

Mophonology becomes particularly relevant when addressing processes such as vowel harmony, consonant alternation, and affixal modifications that arise from the interaction between morphemes. This study aims to define the place of morphonology within morphological typology, emphasizing its explanatory power and role in understanding language-specific and cross-linguistic variation.

Defining Morphonology. Morphonology refers to the subfield of linguistics that investigates how phonological forms of morphemes are influenced by morphological contexts. It is particularly concerned with predictable phonological alternations that occur during morphological operations such as affixation, compounding, or derivation. These alternations may be regular (e.g., allomorphy based on phonological environment) or morphologically conditioned (e.g., irregular stem changes).

For instance, in Turkish—an agglutinative language—vowel harmony is a morphonological process that determines the shape of suffixes based on the phonological features of the root [Katamba 2005, p. 180]. In contrast, English—



considered closer to the fusional type—demonstrates morphonological alternations in plural formation (e.g., /s/ vs. /z/ vs. /ɪz/ in “cats,” “dogs,” “dishes”).

Morphological typology classifies languages based on how morphemes are structured and combined:

- **Isolating languages** (e.g., Mandarin) have minimal morphology and thus limited morphonological interaction.
- **Agglutinative languages** (e.g., Turkish, Finnish) use clear-cut morphemes and often exhibit rich morphonological processes such as vowel harmony or consonant assimilation.
- **Fusional languages** (e.g., Latin, Russian) show single morphemes encoding multiple grammatical features, often accompanied by morphonological alternations like ablaut or suppletion [Bauer 1993, p. 176].

In agglutinative languages, morphonology serves a regularizing function, ensuring phonological coherence across morpheme boundaries. For example, the suffix for possession in Turkish (-im, -im, -üm, -um) changes based on the vowel of the root word due to vowel harmony rules [Stockwell & Minkova 2003, p. 10].

In fusional languages, morphonological processes often involve internal stem changes, such as the German verb “geben” (to give), whose past tense is “gab.” Such patterns challenge simple morphological analysis and illustrate the need for a morphonological perspective.

Even in isolating languages, minor morphonological effects may emerge in compounds or reduplication, albeit with far less frequency or systemic regularity.

Morphonological processes observed cross-linguistically include:

- **Vowel harmony:** A hallmark of agglutinative languages like Turkish or Finnish.
- **Consonant mutation:** Seen in Celtic languages like Welsh.
- **Ablaut and umlaut:** Internal vowel changes in Indo-European languages (e.g., sing–sang–sung).
- **Allomorphy:** Contextual variation in affix form, as seen in the English plural suffix [Deschamps et al. 2004, p. 45].

These processes serve not only to maintain phonological well-formedness but also to signal grammatical distinctions.

The sound variations in words, their derivatives and grammatical forms of words, are known as **sound alternations**.



It is perfectly obvious that sound alternations of this type are caused by assimilation, accommodation and reduction in speech. For example: the dark [ɫ] in *spell* alternates with the clear [l] in *spelling*. Vowel alternations are the result of the reduction in unstressed positions: e.g. *combine* (n) ['kQmbain], *combine* [kəm'baɪn] where [Q] in the stressed syllable of the noun alternates with the neutral sound in the unstressed syllable of the verb. To approach the matter from the phonological viewpoint, it is important to differentiate **phonemic** and **allophone alternations**. Some sound alternations are traced to the phonemic changes in earlier periods of the language development and are known as **historical**. Historical alternations mark both vowels and consonants, though the alternating sounds are not affected by the phonemic position or context. The sound changes, which occurred in the process of historical development of the language, are reflected in present-day English as alternations of phonemes differentiating words, their derivatives and grammatical forms. The following list of examples presents the types of alternations:

1. Distinction of irregular verbal forms:

[i: – e – e]: mean – meant – meant

[I – V – V]: dig – dug – dug

[ai – @u – I]: write – wrote – written

2. Distinction of causal verbal forms:

[I – e]: sit – set

[ai – ei]: rise – raise

[O: – e] fall – fell

3. Distinction of singular and plural forms of nouns:

[æ – e]: man – men

[U – i:]: foot – feet

[u: – i:]: tooth – teeth

4. Distinction of parts of speech in etymologically correlated words:

[i: – e]: feast – festive

[a: – æ]: class – classify

[Q – e]: long – length

Morphonological Alternations of Vowels. Verb-Noun: abide [ə'baɪd] -яшамок - abode [ə'bəʊd] -яшаш жойи [ai] - [ou]; live [lɪv] -яшамок-life [laɪf] -хаёт [ɪ] - [ai]; bite [baɪt] -тишламok - bit [bɪt] -кисм [ai] - [ɪ]; imagine [ɪ'mædʒɪn] - тасаввур килмок - image ['ɪmɪdʒ] - тасаввур [se] - [ɪ]; bleed [bli:d] -конга беланмок - blood [blʌd] -кон [ɪ:] - [ʌ]; lose [lu:z] - loss-йукотмок [los] -йукотиш [u:] - [ʊ]; confide [kən'faɪd] -ишонмок - confidence ['kɒnfɪdəns] -ишонч [ai] - [ɪ]; decline [di'klaɪn] -пастламok - declension [di'klenʃən] -пасайиш [ai] - [e]; dine [daɪn] -тушлик килмок dinner ['dɪnə] - тушлик [ai] - [ɪ]; reach [ri:tʃ] -чузмok - retch [retʃ] -чузиш [ɪ:] - [e]; feed [fi:d] -овкатлантирмок - food [fu:d] -овкат [ɪ:] - [u:]; breathe [bri:ð] -нафас олмок - breath [breθ] -нафас [ɪ:] - [e]; tell [tel] -хикоя айтмок-tale [teɪl] -хикоя [e] - [eɪ]; defreeze ['di:fri:z] -музлатмок - defroster [di:'frɒstə] -музлатма [ɪ:] - [ʊ]; bathe

[beɪð] -чумилтирмок - bath [ba:θ] - чумилиш [eɪ] - [a:]; deride [di'reɪd] -устидан



кулмок - derision [di'ri:ʒn]- кулги [ai] - [1]; gold ['gould]-олтин - gild [gild] - олтин билан копламок [ɔu] - [1]; abstain [əb'stein] -тиймок - abstention [əb'stenʃn]-тийиш [ei] - [e]; accede [æk 's1:d]-лавозимга тайинламок - accession [æk'sefən]-лавозимга утириш [1:] - [e]; know [nou]-билмок - knowledge ['nɔl1dʒ]- билим [ɔu] - [ɔ]; abound [ə'baund] куп булмок - abundance [ə'bʌndəns] -мул куллик [au]

Adjective-Verb full [ful]-тулик - fill [fɪl]-тулдирмок [fil] - [1]; hot [hɔt] иссик heat [h1:t]- иситмок [C] -[1]; staunch [stɔ:ntʃ]-ишончли - stanch [sta:ntʃ]-содик булмок [ɔ:] - [a:];

Adjective- Noun- hot [hɔt] -иссик - heat [hi:t]-иситиш [ɔ] - [1]; deep [d1:p]-чукур - depth [depθ] -чукурлик [1:] - [e]; strong [strɔ ŋ] -кучли - strength [streŋθ] - куч [ɔ] - [e]; wise [waiz]-доно - wisdom ['wɪzdəm]- донишмандлик [a1] - [1]; broad [brɔ:d] -кенг - breadth [bredθ] - кенглик [ɔ:] - [e]; estimable [est1məbl] - хурматли - esteem [1s't1:m] - хурмат [1] - [1:];

Noun- Adjective type [taɪp] -тип - typical [tɪpɪkəl] -типли [a1] - [1] nature [neɪtʃə] - табиат - natural [neɪtʃrəl] -табий [e1] - [æ]

Noun- Other Noun: weft [weft] -газлама - woof [wu:f] -газлама [e] - [u:]; coal [koul] -кумир -collier ['kɔlɪə] -кумирчи [ou] - [ɔ]; clinch [klɪntʃ] -букмок - clench [klentʃ] -букиш [1] - [e]; cluck [klʌk] -какагкаш - clack [klæk] -савсата [ʌ] - [æ]; incline [ɪn'klaɪn] -кия - inclination ['ɪnkleɪʃn] -киялик [a1] - [1]; jab [dɔæb]-уруш - job [dʒɔb] -бирдан уриш [æ] - [ɔ]; pudge [pʌdɔ] -бакалок; - podge [pɔdʒ] -бакалок; [ʌ] - [ɔ]; shade [ʃeɪd] -соя - shadow ['ʃædou] -соя [e1]

- [æ]; tyrant ['taɪərant] -тиран - tyranny ['tɪrəni] -золимона хукмронлик [a1] - [1];

droop {dru:p} -букчайганлик - drop [drɔp] -пасайиш [u:] - [ɔ]; shard [ʃa:d] - сопол парчаси - sherd [ʃə:d] -чинни парчаси [a:] - [ə:]; slush [slʌʃ] - шалоплаш -slosh [slɔʃ] -сув сепиш [ʌ] - [ɔ]; snath [snæθ] -чалги дастаси — snathe [sneið] -белурок дастаси [æ] - [ei]; vendor [vendɔ:] -сотувчи —vender [vendə] -сотувчи [ɔ:] - [ə]; visor ['vaɪzə] -соябон - visard [vizəd] -соябон [a1] - [1]; yolk [jɔulk] -тухум сариги - yelk [jelk] -тухум сариги [ɔu] - [e]; fount [faunt] -манба, чашма - font [fɔnt] - чашма, булок [au] - [ɔ]; firth [fə:θ] -этак - frith [friθ] -кесик, новда [ə:] - [1]; griffin ['grɪfɪn] -курикловчи - griffon ['grɪfən] –гриф [1] - [ə]

Morphonological Alternations of Consonants. Verb-Noun descend [di'send] - тушмок - descent [dɪ 'sent] -тушиш [d] - [t]; intrude [ɪn'tru:d] -бостириб кирмок - intrusion [ɪn'tru:ʒən] -хужум [d] - [ʒ]; join [dʒɔɪn] -боглаш - joint [dʒɔɪnt] - богламок [Ø] - [t]; intend [ɪn'tend] - - хохламок - intent [ɪn'tent] -хохиш [d] - [t]; preclude [pri'klu:d] -олдини олмок - preclusion [pri'klu:ʒən]-олдини олиш [d] - [ʒ]; diffuse [di'fju:s] -таркатмок - diffusion [dɪfu:ʒən]-таркаш, таркалиш[s]; - [ʒ]; wreath [ri:ð] -гулчамбар килмок - wreath [ri:θ] -тукма [ð] - [θ]; defend [di'fend] - химоя килмок - defence [di'fens] -химоя [d] - [s]; refuse [ri'fju:z] -рад килмок - refuse



[ˈrefju:s]-пад [z] - [s]; relieve [riːlɪv] -енгиллаштирмак - relief [riːlɪf] - енгиллатиш [v] - [f]; bounce [baʊns] -сакрамок bound [baʊnd] - сакраш [s] - [d]; evict [ɪ(ː)ˈvɪkt] -кучириб юбормок - eviction [ɪˈvɪkʃən] –кучириш [t] - [ʃ]; grow [grəʊ]-усмок - growth [grəʊθ]-усиш[Ø] - [θ]; speak [spiːk] -гапирмок – speech [spiːtʃ] -нутк [k] - [tʃ]; describe [dɪsˈkraɪb] -тасвирламок - description [dɪsˈkrɪpʃən] -тасвир [b] - [p]; smudge[smʌdʒ] кир булмок, дог булмок -smutch [smʌtʃ] -кир, дог [dʒ] - [tʃ]; complain [kəmˈpleɪn] -шикоят килмок - complaint [kəmˈpleɪnt] - шикаят [ɔ]- [t]; conclude [kənˈkluːd] -тугатмок - conclusion [kənˈkluːʒən]-тугаллаш, хулоса [d] - [ʒ]; intend [ɪnˈtend] -хохламок - intention [ɪnˈtɛnʃən] - хохиш [d] - [ʃ]; deceive [dɪˈsiːv] - алдамок - deception [dɪˈsepʃən] -алдаш [v] - [p]

Adjective-Noun: dependent [dɪˈpendənt] -карам, тобе —dependency [dɪˈpendənsɪ] - карамлик, тобелик [t] - [s]; direct [dɪˈrekt] -тугри - direction [dɪˈrekʃən] – йуналиш [t] - [ʃ]; 'distant [dɪstənt] -узок - distance [ˈdɪstəns] -масофа, узоклик [t] - [s]; respondent [rɪsˈpɒndent] -жавобгар - response [rɪsˈpɒns]-жавоб берувчи

[d] - [s]; precise [priˈsaɪz] аник - precision [priˈsiːʒən] - аниклик [z] - [ʒ]; concise [kənˈsaɪs] -киска —concision [kənˈsiːʒən] -кискариш [s] - [ʒ]

The mostly vowels than consonants of morphological alternations take part within the morpheme in English .

Most of the consonants involved in morphological alternations are pairs formed by voiced–voiceless (weak–strong, lenes–fortes) correlations: descend /dɪˈsend/ - 'descent /dɪˈsent/ /d/ - /t/ пастга тушмок - пастга тушган (ут.з.), bath /bɑːθ/ - bathe /beɪð/ /θ/ - /ð/ «чумилиш - чумилмок», shelf /ʃelf/ - shelves /ʃelvəz/ /f/ - /v/ «токча - токчалар».

Morphological Alternations in within root morpheme. This feature is spread in Uzbek language: intend [ɪnˈtend] -хохламок- intent [ɪnˈtɛnt] - хохиш - [d] - [t]; blood [blʌd] -кон -bleed [bliːd] - конга беланмок - [ʌ] - [1ː]; bath [bɑːθ] - чумилиш - bathe [beɪð] - чумилтирмак - [θ] - [ð]; breath [breθ] - нафас - breathe [briːð] - нафас олмок - [θ]- [ð] ; betide [biˈtaɪd] - содир булмок - betid [bɪtɪd] - содир булди - [aɪ] - [ɪd]; complain [kəmˈpleɪn]-шикоят килмок -complaint [kəmˈpleɪnt] шикаят-[Ø] - [t]; deal [ˈdiːl] -таркатмок - dealt [ˈdiːlt] -таркатилди, таркалди - [Ø] - [t]; decline [dɪˈklaɪn] пастламок - declension [dɪˈklenʃən] - пасайиш - [aɪ] - [e]; define [dɪˈfaɪn] аникламок - definite [ˈdefɪnɪt] - аник - [aɪ] - [1]; descend [dɪˈsend]-тушмок - descent [dɪˈsent] - тушиш - [d] - [t]; deep [ˈdiːp]-чукур - depth [depθ] - чукурлик - [Ø] - [θ]; dream [driːm]-туш курмок - dreamt [dremt] - туш курди -[Ø] - [t]; foot [fʊt] - feet [fiːt] - [u] - [1ː] - оёк-оёклар; goose [guːs] - geese [giːs] - [uː] - [1ː] - гоз-гозлар; have [hæv] - has [hæz] - [v] - [z] - «бор» феълининг куплик ва бирлик шакли; image [ˈɪmɪdʒ] - imagine [ɪˈmædʒɪn] - [ɪ] - [æ] - тасаввур-тасаввур килмок; join [dʒɔɪn] - joint [dʒɔɪnt] - [Ø] - [t] - кушмок-кушма; lead [liːd]-led [led] - [1ː] - [e]-«рахбарлик килмок» феълининг хозирги ва утган замон шакллари; mouse [maʊs] - mice [maɪs] - [au] - [aɪ] - сичкон- сичконлар; shelf [ʃelf] - shelves [ʃelvz] - [f] - [v] - токча-



токчалар; send [send] - sent [sent] - [d] - [t] - «юбормок» феълинииг хозирги ва утган замон шакллари; shoot [shu:t] - shout [ʃaut] [u:] - [au] - шовкин килмок-шовкин; shade [ʃeid] - shadow [ʃædou] [ei] - [æ] - соя килмок-соя; speak [spi:k] - speech [spi:tʃ] [k] - [tʃ] - сузламок, гапирмок - нутк; [Abduazizov A.A. 1986, p.167-171]

We can established a lot of morphonological alternations in word formatin in Russian than English.

Alternations of Vowels in Russian

1. Verb-Noun: счесть-счёт /e/ - /o/
2. Adjective-Verb: глухой-глохнуть /y/ - /o/, сухой-сохнуть /y/ - /o/
3. Adjective-Noun: чёрный-чернь /o/ - /e/
4. Noun-Other Noun горшок-горшечник /o/ - /e/
5. tranzitive – intranzitive Verb : запросить-запрашивать /o/ - /e/, просмотреть-просматривать /o/ - /e/, созвать-созывать /Ø/ - /и/.

Alternation of Consanant in Russian

1. Verb-Noun: бродить-брожение /д/ - /ж/, исказить-искажение /з/ - /ж/, известить-извещение /ст/ - /ш/, светить-свечение /т/ - /ч/, повысить-повышение /с/ - /ш/, править-правление /в/ - /вл/, сватать-свадьба /т/- /д/
2. Noun-Adjective книга-книжный /г/ - /ж/, песок-песочный /к/ - /ч/, пух- пушной /х/ - /ш/, девица-девичий /ц/ - /ч/
3. short form of Adjective - От: ряб-рябь /б/ - /б'/, сед-сечь /д/ -/д'/, гол-голь /л/ - /л'/, дан-дань, герн-гернь /н/ - /н'/, хвор-хворь, стар-старь /р/ - /р'/, желт-желть, крут-круть, нечист-нечисть /т/ - /т'/, дик-дичь /к/ - /ч/, сух-сушь, глух-глушь, тих-тишь /х/ - /ш/
4. tranzitive – intranzitive verb: разгладить-разглаживать /д/ - /ж/, разносить-разнашивать /с/ - /ш/, поворотить-поворачивать /т/ -/ч/, заморозить-замораживать /з/ - /ж/, вырастить-выращивать /ст/ - /ш/
5. Noun-Nouns друг-другок /г/ - /ж/, пух-пушок /х/ - /ш/, бык-бычок /к/ - /ч/, ноготь-ноготок /т'/ - /т/, муха-мушка /х/ - /ш/, церковь-церковка /в'/ - /в/

The presence of systematic morphonological phenomena across morphological types suggests that morphonology should be integrated into typological classification. It allows linguists to account for variability in morpheme realization and to explain irregular patterns that purely morphological models cannot capture.



Additionally, morphonology informs language change and grammaticalization, showing how phonological erosion can give rise to new morphological paradigms.

Furthermore, morphonological analysis supports language learning and processing studies by revealing predictable patterns that can aid in morphological parsing.

Conclusion. Morphonology occupies a critical space in the study of morphological typology. By highlighting how phonology and morphology interact in word formation, it enriches our understanding of language structure across typological categories. Agglutinative and fusional languages, in particular, rely heavily on morphonological rules to structure and constrain morpheme combination. As linguistic theory continues to integrate insights from multiple domains, the role of morphonology will remain indispensable in typological and descriptive linguistics.

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