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Extended Abstract

The Analysis of Past Stem Allomorhpy of Verbs Based on Distributed Morphology

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Introduction

Distributed Morphology (DM) is one of the new theories which is necessary to be tested in Persian morphology in order to find out its effectiveness. The same treatment of this theory towards morphological construction and syntactic construction causes to provide a minimal analysis for both. In the present study, based on one of the versions of DM, Siddiqi (2009), one aspect of Persian verb allomorphy, that is, "past stem allomorphy", is investigated. Past stem allomorphy of verbs is related to different realizations of verb stems in the past tense. Usually, allomorphy is considered as a number of changes in which a set of semantic or morphosyntactic features have two or more phonological realizations regarding the context, which are made by means of readjustment rules. But Siddiqi (2009: 41) considers all morphologically conditioned allomorphy is essentially suppletive, and by eliminating readjustment rules, he views that all vocabulary items, even those realizing roots, compete in the same fashion for insertion. This research examines Persian verb allomorphy based on the above model with a different perspective from previous researches and seeks to achieve a more uniform approach toward this issue as well as examining the extent to which this approach can reduce the challenges of previous analyses.

Materials & Methods

In this study, past stems of regular and irregular Persian verbs (imperfect and perfect forms) are examined adopting a descriptive-analytical method and its aim is to present an analysis of past stem allomorphy of Persian verbs which is cost-effective and less challenging. The reviewed literature of the study on past stems of verbs in based on DM approach can be found in the works of Halle and Marantz (1994), Harley and Noyer (1999), Embick and Marantz (2008), Siddiqi (2009), Embick (2010), Haugen and Siddiqi (2013), Bobaljik (2015) and Paster (2016). In Persian, investigations on the past stem allomorphy of verbs have been done

by Munshizadeh (1998), Kord-e Zafranlu et al (2015), Anoushe (2018, 2021) and Arkan& Heydarpour Bidgoli (2020). Only the last two studies have been conducted within the framework of DM.

Results & Discussion:

In the analysis of the past stem of regular verbs, the only possible candidates in the vocabulary for the feature [past] is one of the morphemes *ad, id, t, d*, which are assigned merely to this feature. Each of these regular morphemes discharges a verbal root/present stem without realizing it. But in the final stage, the verbal roots such as "*xor, kosh, dozd, ist*" must be realized to provide meaning of the construction. Since, no vocabulary item(VI) fused with the [past] feature has been specified for each of the aforementioned stems and each one is not blocked from the feature [past], no VI can be inserted into the derivation and thus the derivation is not possible. The only derivation containing both the feature [past] and each of these verbal root will be the one where the root and the [past] feature have failed to fuse, thus resulting in insertion of both *xor* and *–d, kosh and –t, dozd and -d , ist and –ad*, in order to build regular past tense verbs *xord, kosht, dozd, istad*. But in the analysis of the irregular past stem of Persian verbs, such as *shekastan*, according to Siddiqi's model (2009), using merger and fusion mechanisms, that is, based on the movement of the verbal root/present stem of *shekan* towards the functional node " v", then merging together, a complex is formed and then this resulting complex (*shekan*+v) and the [past] fuse together. The resulting exponence is a single fused vocabulary item, *shekast*, which is stored in the Persian vocabulary, and compete with other vocabulary items, but the winner candidate is *shekast*, specified for the [past] feature of this verb. It is this form that is used as the grammatical form of the past verb of *shekastan* in Persian, not other forms such as **shakand.* In order to explain these cases, we use the constraint "Minimize Exponence" which considers the most economical derivation is the one that all functional features are realized by the fewest vocabulary items. The mechanism required to fulfill such a constraint is the fusion mechanism that should be applied to save the time and energy required for the phonological realization of such a past verb in Persian. Therefore, this constraint requires fusion, of course, until it does not crash.

Conclusion

In the analysis of the past stem of verbs based on Siddiqi(2009), a general explanation can be provided for all verbs, that is, by default, the past stems of Persian verbs are elected from the vocabulary, compete with each other, the most economical candidate wins and is lately inserted in the construction (realized as a VI), with one constraint if there is a blocked feature (blocking the fusion of the verbal root with the past feature), regular inflection of the past verb occurs in Persian. The regular past stem does not need to be stored in the vocabulary. In sum, past stems (irregular), which are phonetically realized through the mechanisms of merger and fusion, are registered as suppletive vocabulary items in the inventory of Persian vocabulary and compete with their competitors for insertion. Therefore, in the analysis of

different types of past stems of Persian verbs through the above morphological mechanisms, there is no need to assume other mechanisms such as numerous readjustment rules, secondary exponence, and the assumption of empty morph between the root of a verb/ present stem and the past morpheme, so we can explain past stem allomorphy of Persain verbs more economically. Therefore, this approach is more cost-effective than other approaches.

Keywords: Past Stem, Stem allomorphy, Merger, Fusion, Suppletion, Competition

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