

# Progressive Assimilation in Cognitive Phonology: A Case from Iranian Azerbaijani

Saeed Rahandaz

PhD Candidate in Linguistics, Bu-Ali Sina University

[saeed.rahandaz@gmail.com](mailto:saeed.rahandaz@gmail.com) - [s.rahandaz@ltr.basu.ac.ir](mailto:s.rahandaz@ltr.basu.ac.ir)

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The present paper investigates a progressive assimilation process in Iranian Azerbaijani, and shows that assimilation can be accommodated in cognitive linguistics without Underlying Representations (URs) and ordered rules. Basically this morphophonological process involves the assimilation of 'l' to 'n' thus making '...[nas]+l...' strings '...[nas]+n...' (where "+" stands for the morpheme boundary). In other words, when a stem ends in a nasal consonant 'm, n' the 'l...' suffix after it becomes 'n...'. This phenomenon occurs in the plural suffix and every other suffix beginning with 'l' in its elsewhere form.

The author uses Nessel's (2008) cognitive model to extract the relevant morphophonological schema. A major difference between a cognitive approach and a generative one (such as SPE) is that in the former the linguist does not posit a UR. Therefore, there are no ordered phonological rules to derive the Phonetic Representation (PR). Another difference is that the lexicon, in the cognitive approach, includes predictable information. Nessel's model, which is largely based on Langacker's (1987) ideas, introduces the concept of 'second-order schema' to account for morphophonological alternations and source-oriented generalizations. When two simple schemas (or first-order schemas) are partially or fully compatible, they form a second-order schema and this more abstract schema can capture relationships beyond the product-oriented generalizations. Here, the main difference between abstraction in generative phonology and cognitive phonology lies in what Langacker (1987: 53-54) calls the "content requirement" which only permits structures (phonological, semantic, or symbolic) that actually occur in the utterances.

In a generative approach (such as SPE) the suffix with an initial 'l' would be the UR and a phonological rule "l > n / [nas] + \_\_\_" would derive the suffix with an initial 'n' as the PR. But in the present cognitive model, the elsewhere suffix with an initial 'l' is the prototypical allomorph and an extension relation connects it to the 'n...' allomorph. Based on their symbolic similarity, both of those allomorphs (along with other possible allomorphs), form a network as members of a more abstract schema (the morpheme) which is connected to those allomorphs via instantiation relations. For example, the plural morpheme '...+[cor]Ar' is formed based on its allomorphs '...+lAr', '...[nas]+nAr' and '...[distr]+dAr'. All of those allomorphs, regardless of their predictability, exist as schemas in the lexicon.

As for the morphophonological process, a schema ['...+l...' > '...[nas]+n...'] is formed based on all second-order schemas containing the prototypical 'l...' allomorph and the 'n...' allomorph and that schema accounts for this morphophonological phenomenon.

By letting more information into the lexicon, cognitive phonology dispenses with URs and ordered rules and by using common tools such as schema formation and categorization, cognitive phonology gives an explanation which is consistent with other cognitive sciences.

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