



# The Role of Second Order Schemas in the Analysis of [N + fenasi/negari/kavi]<sub>N</sub> and their Corresponding Adjectives in Persian

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#### **Abstract**

The purpose of the present study is to apply the concept of 'second order schemas' within the framework of Construction Morphology (Booij, 2010, 2018) for analyzing some morphological structures in Persian in order to explain how these structures are formed. Second order schemas, which are defined as sets of two or more paradigmatically related constructional schemas, are employed in the present research as an analytical tool for explaining three morphological patterns that predominantly are related to scientific disciplines, branches and technologies. These patterns include: (1) nouns with the structure [N-Jenas-i] and their corresponding relational adjectives; (2) nouns with the structure [N-negar-i] and their corresponding relational adjectives; (3) nouns with the structure [N-kav-i] and their corresponding relational adjectives.

In the first derivative structure, a noun is combined with the present stem of 'fenas' ('know') and the suffix 'i'. The output of this schema is a noun denoting a scientific discipline or branch, as represented below:

 $[[x]_{Ni}$  - $\int enas]_N -i]_{Nj} \Leftrightarrow [a scientific discipline/branch for studying <math>SEM_i]_j$ 

The above schema has two corresponding relational adjectives, as illustrated below:

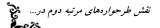
#### NounRelational adjective 1 Relational adjective 2

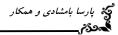
zaban- $\int$ enas-i ('linguistics')zaban- $\int$ enaxt-i ('linguistic') zaban- $\int$ enas-ane ('linguistic')

ravan-fenas-i ('psychology')ravan-fenaxt-i ('psychologyical') ravan-fenas

These two patterns can be accounted for by the following second order schemas in which

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there is a paradigmatic relationship between the verb stems or the affixes in the two constructional schemas.

 $<\![[x]_{Ni} \text{-} \int \text{enas-} i]_{Nj} \Leftrightarrow SEM_j > \approx <\![[x]_{Ni} \text{-} \int \text{enax-} i]_{Ak} \Leftrightarrow [\text{Related to/based on SEM}_j]_k > \\<\![[x]_{Ni} \text{-} \int \text{enas-} i]_{Nj} \Leftrightarrow SEM_j > \approx <\![[x]_{Ni} \text{-} \int \text{enas-} \text{ane}]_{Ak} \Leftrightarrow [\text{Related to/based on SEM}_j]_k > \\\text{In the second derivative structure, a noun is combined with the verb stem 'negar' ('graph') and the suffix 'i' to form a noun denoting a scientific method or technology. <\![[x]_{Ni} \text{-negar-} i]_{Nj} \Leftrightarrow [a scientific method/technology for studying/analyzing SEM}_i]_j > \\\text{The paradigmatic relationship between this schema and its two adjectival schemas can be expressed by the following second order schemas:}$ 

 $<\![[x]_{Ni} \text{-negar-}i]_{Nj} \Leftrightarrow SEM_{j}\!\!> \approx <\![[x]_{Ni} \text{-nega}[t\text{-}i]_{Ak} \Leftrightarrow [Related to/based on SEM_{j}]_{k}\!\!> \\ <\![[x]_{Ni} \text{-negar-}i]_{Nj} \Leftrightarrow SEM_{j}\!\!> \approx <\![[x]_{Ni} \text{-negar-ane}]_{Ak} \Leftrightarrow [Related to/based on SEM_{j}]_{k}\!\!>$ 

Here is an example of the above two second order schemas:

### NounRelational adjective 1Relational adjective 2

qowm-negar-i ('ethnography')qowm-**negst**-i ('ethnographic')qowm-negarane ('ethnographic')

In the third derivative structure, a noun is combined with the verb stem 'kav' ('analyze') and the suffix 'i' to form a noun denoting a scientific discipline, approach or method.

 $<[[x]_{Ni}$  -kav-i]<sub>Nj</sub>  $\Leftrightarrow$  [a scientific discipline/approach/method for studying/analyzing SEM,];>

An example of this schema and its two relational adjectives is as follow:

#### Noun Relational adjective 1 Relational adjective 2

ravan-kav-i ('psychoanalysis') ravan-**kaft**-i ('Psychoanalytic') ravan-kav-ane ('Psychoanalytic')

The following second order schemas show the morphological patterns of the corresponding relational adjective:

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<[[x]_{N_i}-kav-i]_{N_j} \Leftrightarrow SEM<sub>j</sub>> \approx <[[x]_{N_i}-kav-ane]<sub>Ak</sub> \Leftrightarrow [Related to/based on SEM<sub>j</sub>]<sub>j</sub>> <[[x]_N-kav-i]_{N_i} \Leftrightarrow SEM<sub>i</sub>> \approx <[[x]_N-kaft-i]_{A_j} \Leftrightarrow [Related to/based on SEM<sub>i</sub>]<sub>i</sub>>
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The results show that 'second order schemas' are useful analytical tools for explaining the way in which the aforementioned structures are formed. These results also suggest that the constructional approach, unlike the derivational approach, can promisingly explain the way in which such problematic structures are formed.

**Keywords:** Construction Morphology; Second order schema; Word-based approach; Derivation