## Persian Morphological Causatives

## Rana Nabors

University of Arizona

In Farsi, a variant of Persian spoken in Iran, a causative morpheme exists that marks some verbs for causation, but not others. In this paper, I provide a theoretical analysis of this restriction. I claim that simple [heavy] verbs in Persian are underlying bimorphemic, consisting of a lexical  $\sqrt{}$  plus a verbalizing 'little v'. Different verbs are specified to occur with different flavors of v (Folli and Harley 2005), which accounts for the idiosyncratic nature of these verbs in relation to the morphological causative morpheme,  $-\hat{a}n$ -. Working within the Distributed Morphology framework (Halle and Marantz 1993), I propose that certain verbal roots compose only with agentive [+volitional] little v, during numeration (in the sense of Chomsky 1995). This volitional requirement prevents these roots from composing with the causative flavor of v, consequently blocking the causative VI from inserting.

In Farsi, simple verbs are causativized with the morpheme,  $-\hat{a}n$ -, pronounced -un- in colloquial speech. (1a) is an unergative verb, while (1b) is the causativized, transitive counterpart.

- (1) a. bachche raghsid child danced 'the child danced'
  - sârâ bachche-ro raghs-ân-d
    sara child-RA¹ dance-CAUS-PST
    'Sara caused the child to dance' (Lit: 'Sara danced the child')

While both transitive and intransitive verbs can be causativized with  $-\hat{a}n$ -, there are quite a few verbs that block this morpheme, like (2), and (3).

- (2) a. ali tup-o dozd-i-d (transitive) ali ball-RA steal-verbalizer-PST 'Ali stole the ball'
  - b. \*dozd-ân-d
- (3) a. ali xune mun-d (intransitive) ali house stay-PST 'Ali stayed home'
  - b. \*mun-ân-d

Additionally, there are verbs in which the causative morpheme does not add another argument, as in (4).

- (4) a. ali gusht-o (bâ dast) kub<u>i</u>d ali meat-RA with hand pound 'Ali pounded the meat (by hand)'
  - b. ali gusht-o (bâ dast) kub-<u>ân</u>-d ali meat-RA with hand pound-CAUS-PST 'Ali pounded the meat (by hand)'

Following causative typology expressed in Pylkkänen (2002), I show that Farsi is a non-voice bundling language, unlike English which doesn't allow unergative or transitive causatives (e.g. \*John cried the baby, Pylkkänen 2002). I show that the morphological causative morpheme,  $-\hat{a}n$ -, is a root-selecting

 $<sup>^{\</sup>rm 1}$  -ra is a specificity/accusative marker and can be pronounced –ro, or –o in colloquial speech.

causative in the sense of Harley (2008), which discussed root-selecting and vP-selecting causatives in Japanese, and showed that vP complement taking causatives are biclausal. Additionally, I show that the causative morpheme is in complementary distribution with an overt verbalizer -i- (see example 4 and 7). Given these findings, I propose the following three Vocabulary Items compete for insertion:

```
(5) VIs competing for insertion v \leftrightarrow null / [\_\_ \sqrt]{} v \leftrightarrow -i-/ [Elsewhere] v_{CAUS} \leftrightarrow -an-/ [____, +causation]
```

I claim that structures with [+volitional] feature requirements on the subject do not merge with a [v.caus] bundle. Since VIs with features not present in the feature bundle do not qualify for insertion at the terminal node, only VIs with a [v] feature can compete for insertion. An example of an  $-\hat{a}n$ - blocking verb is shown in (6a), while a representative structure with inserted Vocabulary Items is presented in (6b).

(6) a. ali sib-o shos-t- $\emptyset$  ali apple-RA wash-PST-3sg 'Ali washed the apple' b.  $[_{TP}[_{VP} \text{ ali } [_{\sqrt{VP}} \text{ sib-o shos}] [_{V}\emptyset]][_{T}-t]]$ 

If the feature bundle [v.cause] merges with the Root Phrase during numeration, the terminal node will be specified for [v.caus], allowing the causative VI to enter the competition for insertion at the terminal node. The more specified VI will win the competition and the terminal node will be realized as  $-\hat{a}n$ -, as in (7b), which is the causative counterpart of (7a).

(7) a. 
$$[_{TP}[_{VP} [_{\sqrt{VP}} \text{ bachche raghs}] [_{v.} -i-]][_{T}-d]]$$
  
b.  $[_{TP}[_{VP} \text{ ali} [_{\sqrt{VP}} \text{ bachche-ro raghs}] [_{v.\text{cause}}-\hat{a}n-]][_{T}-d]]$ 

In this paper, I claim that some unergative and transitive verbs, while agentive, lack a volitional feature that is supplied during numeration. Verbs with this feature bundle assign [+volition] to the structural subject of the construction, effectively blocking the causative Vocabulary Item from competing to fill the terminal node, while structures that lack this feature can select for the causative Vocabulary Item, adding Causation to the construction. The proposed analysis provides a structural reason why certain simple verbs block the causative morpheme, and predicts that all unaccusative verbs can causativize with  $-\hat{a}n$ -, a prediction that is borne out. Additionally, this analysis explains two other types of cases: verbs that take— $\hat{a}n$ - without gaining an argument, (4), and verbs with a paradigm gap in the non-causative form, as in (8a-b).

References: Chomsky, N., 1995. The Minimalist Program. Cambridge: MIT Press. Dabir-Moghaddam, M., 1982. Syntax and Semantics of Causative Constructions in Persian. Dissertation: University of Illinois at Urbana-Champaign. 1-284. Folli, R. & Harley, H., 2005. Consuming results in Italian and English: Flavors of v. In Aspectual inquiries, P. Kempchinsky & R. Slabakova (eds), 95–120. Dordrecht: Springer. Halle, M. and Marantz, A., 1993. "Distributed Morphology and the pieces of inflection," in K.Hale and J. Keyser, eds. The View from Building 20. pp.111-176. MIT Press Cambridge, MA. Harley, H., 2006/2008. "On the Causative Construction." In The Handbook of Japanese Linguistics, Shigeru Miyagawa and Mamoru Saito. (eds). Oxford:OUP. Harley, H., 2014. On the identity of roots. Theoretical Linguistics 40.3:225-276. Key, G., 2012. The Morphosyntax of the Turkish Causative Construction. Doctoral dissertation. University of Arizona, Tucson, AZ. Pylkkänen, L., 2002. Introducing Arguments. Doctoral dissertation, MIT, Cambridge, Mass.