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Persian 'Bayad': A violation of the extended projection principle?

The Persian verb 'bayestan' (meaning 'to have to') is deficient in the sense that contrary to other Persian verbs it cannot be inflected for person and number. It may assume one of two morphologically isolated forms:

(a) 'bayad' mainly used for present and future events (and even for past ones if the verb to follow is already inflected for past tense), and

(b) 'bayest/bayesti' for past (but again not necessarily as they can be used with other verbs inflected for present tense in order to refer to a present/future tense event). Then when used in a phrase, it is the verb to follow that must be inflected for agreement and tense (although 'bayad' is not atemporal itself as mentioned above):

1. a. (Man) bayad beravam.

I must go-1st-sing-present

"I must go"

b. (To) bayad beravi.

You must go-2nd-sing-present

"You must go"

c. (U) bayad beravad.

s/he must go-3rd-sing-present

"S/he must go"

2. a. (Man) bayad/bayest miraftam.

I must go-1st-sing-past

"I had to go"

b. (To) bayad/bayest mirafti.

You must go-2nd-sing-past

"You had to go"

- c. (U) bayad/bayesti miraft.
 s/he must go-3rd-sing-past
 "S/he had to go"

'Bayad' cannot be an auxiliary verb because it behaves quite differently than a typical Persian

AUX like 'khastan' (to want):

3. a. (Man) khaham raft.
 I want-1st-sing.-future go-nonfinite
 "I will go"

- b. (To) khahi raft.
 You want-2nd-sing.-future go
 "You will go"

- c. (U) khahad raft.
 s/he want-3rd-sing-future go
 "S/he will go"

Here it is 'khastan' that is inflected for tense and agreement; the main verb (raft) remains non-finite. 'Bayad' cannot be an auxiliary because it is the verb to follow and not 'bayad' itself that is inflected for tense and agreement. Interestingly enough, in Persian subjectless sentences like (4) below there is no inflection for agreement and tense on the second verb either:

4. Bayad raft.
 must go-nonfinite
 roughly meaning "To go is a must/ one must go"

'Bayad' is not inflected either. Perhaps it is just some temporal feature of 'bayad' that makes it still a (present-tense) sentence. Although Persian is a prodrop language, one cannot assume that pro is the subject of such sentences. Actually, the sentence is neutral with regard to the subject, and whatever personal subject pronoun one inserts in the subject position will make the sentence ungrammatical:

5. *a. Man bayad raft.
 *b. To bayad raft.
 *c. ...

The sentence will be still ungrammatical if a universal quantifier occupies the subject position:

6. * Har kas bayad raft.
 every one must go

The grammatical version of (6) is:

7. Har kas bayad beravad.
 every one must go-3rd-sing-present

Persian 'bayad' is different from impersonal verbs in such languages as French, Spanish and Italian, too: contrary to an impersonal construct like the French sentence 'il faut partir', there is no dummy singular subject pronoun in a 'bayad' construct, nor can one accept arbitrary pros in the subject position. Rizzi (1986) considers person marking (but NOT number marking) unnecessary to license non-referential null subjects. For 'bayad', even number agreement is missing. It is just absurd to hypothesize that arbitrary pro can be licensed even without number marking. If there is no evidence of any sort (neither person marking nor number marking, nor any other kind of marking) to the presence of pro in [Spec, IP], then the only 'reason' one could have in order to assume its presence will be the EPP itself, which begs empirical questions in this case.

This puts Persian in contrast with Brazilian Portuguese in which arbitrary pros may be safely inserted in sentences like those below:

8. a. e' preciso sair.
 is necessary to go
 "To go is necessary"
- b. nao usa mais saia.
 not wear anymore skirt
 "Nobody wears skirts anymore"

because the verb in a and b are morphologically marked as the 3rd person singular.

'Bayad' constructs in Persian might seem to be similar to serial verbs in that the first verb is inflected in very limited way. Moreover, the sequence of juxtaposed verbs share the same subject. What makes the serial analysis impossible for 'bayad' are:

(a) One can insert the complementizer 'ke' (that) between 'bayad' and the second verb (like any other verb followed by a second verb with 'potential mood'):

9. a. Man goftam (ke) u/pro beravad.

I said that he go-pres-3rd
"I told him to go"

b. U bayad ke beravad.

s/he must that go-pres-3rd
"S/he must go"

This suggests that 'bayad' and the second verb belong to two different IPs:

[IP Man bayad [ke [pro beravam]]] "I must go."

(b) In (10) below, none of the two verbs are inflected ('bayad', however, is present in tense but not morphologically inflected for that):

10. [IP Bayad raft]

'Bayad' behaves here like a present-tense modal, although any temporal inflection is still missing. Then a second IP with a past tense makes the whole sentence ungrammatical. This suggests that the most leftward IP is present in tense:

11 a. [IP Bayad raft [ke [IP u/pro nayayad]]].

must go that he not-come-pres-3rd
"One must go so that he doesn't come"

b. *[IP Bayad raft [ke [IP u/pro nemiamad]]].

must go that he not-come-past-3rd

'Bayad' also acts similar to the Persian modal 'mishavad' (to become) in a sense:

12. Mishavad raft.
 become-3rd-sing-pres go
 "It is possible to go"

But they are not identical. Firstly, 'mishavad' is inflected for tense while 'bayad' is always present. Secondly, for 'mishavad', one can think of some non-referential arbitrary pro that agrees with 'mishavad' in number (but not person, though):

13. a. Mishavad raft.
 become-3rd-sing-pres go

b. * Mishavand raft.
 become-3rd-pl-pres go

These facts suggest that impersonal 'bayad' violates the Extended Projection Principle as the principle states 'that [Spec, IP] is obligatory, perhaps as a morphological property of I or by virtue of the predicational character of VP... . The specifier of IP is the subject of IP' (Chomsky, 1995:55). Chomsky's reliance on the EPP features (see *Minimalist Inquiries*, 1998, and *Derivation by Phase*, 1999) may turn to be an unfortunate move as the EPP seems not to be as universal a requirement as it appears.

References

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