Persian Number Agreement

Persian exhibits an interesting puzzle in predicate number agreement with pronoun, common noun, and coordinate phrasal subject. Many Indo-European languages use a second person plural pronoun to express respect or social distance towards an addressee (e.g. a French pronoun *vous*). In Persian, this applies to all pronouns across three persons. Those plural pronouns trigger 'plural' number agreement on predicates regardless of their subjects' meanings, as shown in (1) - (3). Contrary to plural pronouns, singular pronouns cannot trigger plural agreement nor refer to more than one person. One thing to note is that Persian is a pro-drop language, so that all data shown here are grammatical without the independent subjects. The data with pronouns appear to indicate that the form of the subject controller decides verb agreement. However, agreement with coordinated phrasal subjects reveals different situation: verbs agree semantically depending on the number of subject's referent (see the sentence (4) where verb agrees in singular when the aunt and mother-in-law refers to a single person, which is possible in Persian culture).

The agreement phenomenon gets more complicated when considering agreement with common noun subjects. First, the common nouns in singular number trigger plural predicate agreement if the speaker shows respect towards the non-participants (5). On the other hand, the plural common nouns should trigger plural agreement and cannot have a non-aggregate meaning. Second, the common nouns cannot take plural marking unless the referent is specific as in (6). Non-specific nouns are interpreted as aggregates by quantifiers or numerals and plural verbs. Thus, the common nouns without plural markings are not necessary refer to non-aggregates.

Summarization of the data is as follows: pronouns always trigger syntactic agreement, while non-headed phrasal subjects trigger semantic agreement; common nouns trigger syntactic agreement only when they have plural number marking; all plural predicates can convey politeness to an individual regardless of the categories of the subjects.

The complicated agreement system in Persian is analyzed as follows: (i) Verbs agree in INDEX number feature of their subjects. The pronouns have a referential IND number, so that verbs should agree with it regardless of the subjects' semantic number. (ii) I explain the semantic agreement, adopting Target Marking Principle (Wechsler and Hahm, to appear) that when a controller lacks an agreement feature, target agreement default in semantics. Thus, when the controller subject lacks number feature as in the coordinate phrasal subject, predicates agree in semantic number. (iii) Verbs possess semantic information of their subjects. Singular verbs encode that their subjects are grammatically singular or they denote non-aggregates. Plural verbs specify that their subjects have plural IND number or denote either aggregates or polite non-aggregates. (iv) Common nouns without plural marking lack grammatical number, which is evident from the fact that non-specific nouns denoting an aggregate lack plural marking. The grammatical plural number to bare nouns can be assigned by determiners such as numerals. (v) The verbs have an optional subject ((↑PRED) = 'pro'), (Bresnan and Mchombo 1987). This equation becomes active when no independent subject appears, which explains pro-drop cases. Thus, semantic information that verbs hold becomes potent in the predicate agreement and the interpretation of the subjects when no independent subject shows up or when subjects lack grammatical number.

The current study provides an analysis of the complicated number agreement patterns shown in Persian, which has not been done much in syntax. They are basically handled by three parts: the Target Marking Principle, the matter of whether the agreement controllers possess grammatical number features or not, and targets' semantic contribution to their controllers.

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- (1) a. ma az in adam-a nist-im /*nist-am we from this/these person-PL be_not-1PL/*-1SG 'I am / We are not that sort of person.' (Mahootian 1997: 209)
 - b. man ketab-o tamum-kard-am
 I book-ACC finish-did-1SG
 'I finished the book.'
- (2) a. šomâ saxt kâr mi-kon-id. / *mi-kon-i you.PL hard work IMPF.do. 2PL / *-2SG 'You (one polite or more than one addressee) work hard.'
 - b. to saxt kâr mi-kon-i. /*mi-kon-id you.SG hard work Impf.do.2SG/*-2PL 'You (one intimate addressee) work hard.'
- (3) a. u râft. s/he went.3sG 'S/he (intimate) went.'
 - b. išan raft-and.
 3PL went-3PL
 'S/He (formal) went.' or 'They went. (this meaning is rarely used nowadays)'
- (4) xâleh va madar zan-e Ali vard-e 'otagh šod / šod-and aunt and mother wife-E2 Ali arrive-E2 room became.3sg / -3pL 'Ali's aunt and mother-in-law (an identical person / two people) came into the room.'
- (5) a. âghâ înjâ hast-and?
 gentleman/sir here be.PRES-3PL
 'Is the gentleman here?'
 - b. Pedar-etun
 father-your.PL
 'Your father is intelligent.'
- (6) a. do doxtar-a tuye hayat-and two girl-PL in.EZ courtyard.3PL 'Two girls (specific) are in the courtyard.'
 - b. do / cand doxtar tuye hayat-and two / some girl in.EZ courtyard-3PL 'Two / Some girls (non-specific) are in the courtyard.' (Mahootian 1997: 193)