The diversity of inflectional periphrasis in Persian

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PER-GRAM Project
DFG (Germany) / ANR (France)
http://hpsg.fu-berlin.de/Projects/PerGram/

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Introduction

- General project: **PER-GRAM**
  - An implemented HPSG grammar and lexicon for Persian DFG (Germany) / ANR (France)
  - [http://hpsg.fu-berlin.de/Projects/PerGram/](http://hpsg.fu-berlin.de/Projects/PerGram/)
- **Inflectional periphrasis**: the use of multiple words to fill (what can be conceived as) cells in an inflectional paradigm
- The Persian situation is interesting because very different periphrastic constructions are used within a single system
  - Typologically different varieties of periphrasis can easily be compared
- In this talk we focus on descriptive issues and attempt to avoid controversial theoretical assumptions
  - Exception: lexicalism
    - Morphology and syntax operate via different rule types
## Synthetic conjugation

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<th>TAM</th>
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<th>NEGATIVE</th>
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<td>mi-xar-i</td>
<td>ne-mi-xar-i</td>
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<td>UBD-buy.s1-2SG</td>
<td>NEG-UBD-buy.s1-2SG</td>
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<td>bounded past</td>
<td>buy.s2-2SG</td>
<td>NEG-buy.s2-2SG</td>
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<td>indicative</td>
<td>mi-xarid-i</td>
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<td>NEG-buy.s1</td>
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<td>na-xarid-an</td>
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<td>buy.s2-INF</td>
<td>NEG-buy.s2-INF</td>
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<td>xar-ande</td>
<td>—</td>
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<tr>
<td>participle</td>
<td>buy.s1-PRS.PTCP</td>
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<tr>
<td>past</td>
<td>xarid-e</td>
<td>na-xarid-e</td>
</tr>
<tr>
<td>participle</td>
<td>buy.s2-PRF.PTCP</td>
<td>NEG-buy.s2-PRF.PTCP</td>
</tr>
</tbody>
</table>
Five periphrastic constructions

(1) **Passive**: perfect participle + šodan ‘become’
   
   In tâblo foruxte mi-šav-ad.
   this painting sold UNBD-become.S1-3SG
   ‘This painting is sold.’

(2) **‘Perfect’**: perfect participle + budan ‘be’

   a. Maryam in tâblo=râ foruxte bud.
      Maryam this painting=DDO sold be.s2.3SG
      ‘Maryam had sold this painting.’

   b. Maryam in tâblo=râ foruxte=ast.
      Maryam this painting=DDO sold=be.PRS.3SG
      ‘Maryam has sold this painting.’

(3) **Future**: xâstan ‘want’ + bare past stem

   Maryam in tâblo=râ xâh-ad foruxt.
   Maryam this painting=DDO want.s1-3SG sell.s2
   ‘Maryam will sell the painting’

(4) **Progressive**: dâštan ‘have’ + finite clause

   Maryam dâr-ad in tâblo=râ mi-foruš-ad.
   Maryam have.PRS-3SG this painting=DDO UNBD-sell.s1-3SG
   ‘Maryam is selling the painting.’
The passive is quasi-analytic

- Inflectional prefixes are carried by the auxiliary.

(5) In tâblo foruxte ne-mi-šav-ad.
   this painting sold NEG-UNBD-become.s1-3SG
   ‘This painting is not sold.’

- The relative order is flexible.

(6) In tâblo šod robude va foruxte.
   this painting become.s2 stolen and sold
   ‘It is this painting which was stolen and sold’

- Adverbials can intervene between šodan and the participle.

(7) In tâblo foruxte hatman šode ast.
   this painting sold certainly become be.s1.3SG
   ‘This painting has certainly been sold.’

- The participle can be fronted.

(8) Foruxte fekr mi-kon-am [ tâblo __ šod __ ].
   sold thought UNBD-do.s1-1SG painting become.s2
   ‘I think that if the painting is sold (...).’
The passive is quasi-analytic

- The syntactic flexibility found in the passive suggests a monoclausal (‘clause union’) analysis
- In our terms: flat structure with argument composition
  - The auxiliary combines directly with a participle rather than with a phrase
  - The auxiliary inherits the arguments of the participle and rearranges the syntactic functions
  - Thus arguments of the participle are realized as arguments of the auxiliary (‘argument composition’)

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                                                                            in tâblo
                                                                             be Maryam
                                                                            foruxte mišavad
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Complex (so called ‘perfect’) forms

- Five series of forms based on the copula *budan*
- Only three of the series have a clear synthetic counterpart
- The copula can be a full word or a clitic

<table>
<thead>
<tr>
<th>Simple Present</th>
<th>Complex Present</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>mi-xar-ad</em></td>
<td><em>xarid-e=ast</em></td>
</tr>
<tr>
<td>UNBD-buy.S1-3SG</td>
<td>buy.S2-PRF.PTCP=be.PRS.3SG</td>
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<table>
<thead>
<tr>
<th>Simple Bounded Past</th>
<th>Complex Bounded Past</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>xarid</em></td>
<td><em>xarid-e</em> <em>bud</em></td>
</tr>
<tr>
<td>buy-S2</td>
<td>buy.S2-PRF.PTCP be.S2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Simple Subjunctive</th>
<th>Complex Subjunctive</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>be-xar-ad</em></td>
<td><em>xarid-e</em> <strong>bâš-ad</strong></td>
</tr>
<tr>
<td>IRR-buy.S1-3SG</td>
<td>buy.S2-PRF.PTCP be.SBJV-3SG</td>
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<tr>
<th>—</th>
<th>Complex Unbd. Past</th>
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<tbody>
<tr>
<td>—</td>
<td><em>mi-xarid-e=ast</em></td>
</tr>
<tr>
<td>—</td>
<td>UNBD-buy.S2-PRF.PTCP=be.PRS.3SG</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>—</th>
<th>Complex Perfect</th>
</tr>
</thead>
<tbody>
<tr>
<td>—</td>
<td><em>xarid-e</em> <em>bud-e=ast</em></td>
</tr>
<tr>
<td>—</td>
<td>buy.S2-PRF.PTCP be.S2-PRF.PTCP=be.PRST.3SG</td>
</tr>
</tbody>
</table>
Recently morphologized forms

- The complex present and unbounded past, historically based on a clitic copula, are no more periphrastic:
  - All prefixes precede the participle.

(9) Sâlhâ Maryam be madrase ne-mi-rafte=ast.
years Maryam to school NEG-UNBD-gone=be.PRST.3SG
‘For years, Maryam went to school’

- The participle-auxiliary sequence can not be interrupted.

(10) *Rafte hatman=ast.
left certainly=be.PRST.3SG
‘(S)he has certainly left.’

- The participle can not be extracted

(11) *Mi-rafte sâlhâ Maryam be madrase=ast.
UNBD-gone years Maryam to school=be.S1.3SG

- Morphophonological idiosyncrasies specific to these forms

(12) a. predicative construction b. complex present
mord'e=ast → mord'ast
corpse=be.PRST.3SG
died=be.PRST.3SG
‘It is a corpse.’
‘(S)he has died.’
Truly periphrastic complex forms

- When the auxiliary is a full word, negation attaches to the participle...

   NEG-gone be.PST gone NEG-be.PST
   ‘(S)he hadn’t left.’

- ...the sequence is rigidly ordered and cannot be interrupted...

(14) * Maryam Omid=râ bud dide.
    Maryam Omid=DDO be.s2 seen
    (intended) ‘Maryam had seen Omid.’

(15) * Maryam Omid dide hatman bud
    Maryam Omid seen certainly be.s2
    (intended) ‘Maryam had certainly seen Omid.’

- ...but participle extraction is possible

(16) Foruxte fekr ne-mikonam [ ___ bâš-ad tâblo=râ ].
    sold thought NEG-do be.SBJV-3SG painting=DDO
    ‘I don’t think that s/he has sold the painting.’
True periphrases are [PERFECT +]

- The complex bounded past is the perfect form of the past

(17) Qabl az inke Omid be-res-ad, Maryam birun before from that Omid SBJV-arrive.s1-3sg Maryam out rafte bud.
gone be.s2
‘Maryam had left (before Omid arrived).’

- The complex subjunctive is the perfect subjunctive

(18) a. Fekr mi-kon-am Maryam mariz bâšad.
thought UNBD-do.s1-1sg Maryam sick be.SBJV
‘I think Maryam is sick.’

b. Fekr mi-kon-am Maryam mariz bude bašad.
thought UNBD-do.s1-1sg Maryam sick been be.SBJV
‘I think Maryam has been sick.’
Indirect evidential forms

- The complex unbounded past has an evidential value (Windfuhr, 1982; Lazard, 1985; Jahani, 2000)
  - Refers to an unbounded past event
  - Signals that the speaker only has indirect evidence for what he or she is asserting

     ‘According to Omid, Maryam would have been building this house in 1950.’

     ‘Maryam was building this house in 1950.’
Special cases

• The complex perfect is both perfect and evidential

(20) (Az qarâr), qabl az inke Omid be-res-ad, apparently before from that Omid SBJV-arrive.s1-3sg, Maryam birun rafte bude ast Maryam out gone been be.s1.3sg ‘Apparently, Maryam had left before Omid arrived.’

• The complex present is either (present) perfect or (bounded past) evidential.

(21) Maryam tâze reside=ast. Maryam new arrived=be.s1.3sg ‘Maryam has just arrived.’

(22) (Banâ bar gofte-ye Omid) Maryam in xâne-râ dar According to-EZ Omid) Maryam this house-DDO in sâl-e 1950 xaride=ast. year-EZ 1950 bought=be.s1.3sg ‘According to Omid, Maryam bought this house in 1950.’
A paradigm-based analysis

<table>
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<th>PAST</th>
<th>SUBJUNCTIVE</th>
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<td>DIR. EV.</td>
<td>IND. EV.</td>
</tr>
<tr>
<td>BOUNDED</td>
<td>***</td>
<td>bounded past</td>
<td>complex present</td>
</tr>
<tr>
<td>UNBOUNDED</td>
<td>simple present</td>
<td>unbounded past</td>
<td>cpl. unbd. past</td>
</tr>
<tr>
<td>PERFECT</td>
<td>complex present</td>
<td>complex bnd. past</td>
<td>complex perfect</td>
</tr>
</tbody>
</table>

- Since **PERFECT** is sometimes expressed synthetically, the last row must be part of the inflectional system.

☞ We are dealing with **true periphrasis**: a multi-word construction filling cells in the inflectional paradigm.
The future: a single word?

- The two parts look like word parts, not true words
  - The auxiliary is is a present without *mi-*., an otherwise unattested form in contemporary Persian
  - The other form is a bare (past) stem, otherwise occurring only in impersonal constructions

- Negation occurs before the auxiliary

(23) Maryam Omid=rå na-xâh-ad did.
Maryam Omid=DDO NEG-can.s1-3sg see.s2
‘Maryam will not see Omid.’

- The verb sequence be interrupted only by pronominal affixes

(24) *Maryam Omid=rå xâh-ad hatman did.
Maryam Omid=DDO can.s1-3.sg certainly see.s2
(25) Maryam xâh-ad-aš did.
Maryam want.s1-3.sg-paf.3.sg see.s2
‘Maryam will see her/him.’
The future: a single word?

- The order is rigid.

(26) a. *Maryam Omid=râ did xâh-ad
    Maryam Omid=DDO see.s2 can.s1-3.sg

- Neither verb can be fronted.

(27) a. *Xâh-ad Maryam Omid=râ did.
    can.s1-3.sg Maryam Omid=DDO see.s2
    b. *Did Maryam Omid=râ xâh-ad.
    see.s2 Maryam Omid=DDO can.s1-3.sg

- The analysis fitting the data most closely is a compounding analysis:
The progressive: verb + finite clause

- Combines a finite form of the verb *dâštan* ‘have’ with a second finite verb.

(28) Maryam dâr-ad in tâblo=râ mi-foruš-ad.
Maryam have.PRS-3SG this painting=DDO UNBD-sell.S1-3SG
‘Maryam is selling the painting.’

- Closely resembles a head-finite complement construction.

(29) Maryam mi-dân-ad (ke) Omid in ketâb=râ be
Maryam IPF-know.S1-3.SG that Omid this book=DDO to
Sârâ dâd.
Sara give.s2
‘Maryam knows that Omid gave this book to Sara.’

- NB: subjects of finite clauses can be controlled in Persian.

(30) Maryam mi-xâh-ad (ke) be sinemâ be-rav-ad.
Maryam IPF-want.S1-3.SG (that) to theatre IRR-go.S1-3.SG
‘Maryam wants to go to the movies.’
The progressive: verb + finite clause

- Analysis: the progressive auxiliary
  - takes a subjectless and completentizerless finite clause as complement
  - is defective: only has unbounded aspect forms
  - identifies its morphosyntactic features with those of its complement

\[
\begin{array}{c}
  S \\
  \quad \downarrow \\
  NP \quad V \\
  \quad \downarrow \\
  Maryam \quad \text{dârad} \quad miforušad \\
  \quad \uparrow \\
  \quad \text{TNS prs unbd} \quad \text{TNS prs unbd} \\
  \quad \text{ASP unbd} \quad \text{ASP unbd} \\
  \quad \text{PER 3} \quad \text{PER 3} \\
  \quad \text{NB sg} \quad \text{NB sg} \\
  \end{array}
\]

‘Maryam is selling this painting.’
Comparing periphrastic constructions

- Degrees of analyticity

<table>
<thead>
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<th>Type</th>
<th>Structure</th>
<th>Flexibility</th>
<th>Tenses</th>
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<td>Quasi-analytic</td>
<td>head-complement structure, some distributional idiosyncrasies</td>
<td>limited syntactic flexibility, paradigm integration</td>
<td>passive, progressive</td>
</tr>
<tr>
<td>True periphrasis</td>
<td></td>
<td>complex forms (nonclitic copula)</td>
<td></td>
</tr>
<tr>
<td>Quasi-synthetic</td>
<td>no syntactic flexibility</td>
<td>future</td>
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<tr>
<td></td>
<td>two lexemes involved</td>
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<tr>
<td>Synthetic combination</td>
<td>ordinary synthetic morphology</td>
<td>complex forms (clitic copula)</td>
<td></td>
</tr>
</tbody>
</table>
Comparing periphrastic constructions

- Criteria from (Haspelmath, 2000; Ackerman and Stump, 2004; Spencer, 2006)
  - **Intersectivity**: If a construction expresses grammatical properties that are expressed elsewhere in the synthetic paradigm, then it is periphrastic.
  - **Noncompositionality**: If some features of elements of the construction are in contradiction with features of the construction as a whole, then the construction is periphrastic.
  - **Distributed exponence**: If exponence of features of the construction is distributed on the elements of the construction, then the construction is periphrastic.
  - **Underexhaustivity**: If the head of the construction lacks certain forms that other lexemes in the same category have, then the construction is periphrastic.

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<tr>
<th>construction</th>
<th>intersect.</th>
<th>noncomp.</th>
<th>dist. exp.</th>
<th>underexh.</th>
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<td>−</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>passive</td>
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<td>+</td>
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<td>−</td>
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<td>progressive</td>
<td>−</td>
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</table>
Selected references


