New NP dependency marking in the “second generation” IE languages

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ISTAL23 – Morpho-syntactic isoglosses in Indo-European: diachrony, typology and linguistic areas
Generations of languages

→ Generation 0: PIE

→ Generation 1: Vedic Sanskrit, Gathic Avestan, Homeric Greek

→ Generation 2: Prakrits, Balto-Slavic, Common Germanic, partly Young Avestan and Old Persian

→ Generation 3: Modern Germanic and Romance languages
Basic assumptions

- PIE and Gen1 languages
  - no morphological/syntactic distinction between adjectival vs. substantival NP modifiers
  - qualities expressed by verbs or appositions

- A group of Gen2 languages develop new morphological means for encoding NP modifiers
Hypothesis

➡ Two things to encode:

- constituency: delimiting the boundaries of the NP
- direction of dependency: head vs. modifier

➡ Different Gen2 languages creates new means for it

- variability is parametrical
Morphological parameters

➡ Locus:

• **dependent**-marking: special endings for adjectives

• **head**-marking: Persian ezāfe

• **double** marking: redundant article in Greek

• **zero** marking: amicus Plato sed magis amica veritas
Morphological parameters

→ Position:
  - prefix (e.g. Greek article)
  - suffix (e.g. adjectival endings in Slavic)

→ Autonomy:
  - clitic (article, ezāfe)
  - bound morpheme (endings)
Morphological parameters

 ➔ Lexicalisation

 - nominals become modifiers contextually
  - shown by PIE and Gen1 languages, no adjectival class

 - modifiers are lexicalised as a paradigmatic class
  - creation of a new adjectival class
Hypothesis

 ➔ A pattern observable in a group of Gen2 languages:
   - new encoding of constituency/dependency is created

 ➔ What we have to analyse:
   - source: either relative or demonstrative pronoun, or just pronominal endings
   - morphological parameters
Avestan

- No separate adjective class

- Relative pronoun is used as “quasi-article”
  - relative clause with no predicate

- Links a modifier to the nominal head
  - $X \text{ REL } Y$ encodes $[X_{\text{head}} \ Y_{\text{mod}}]_{\text{NP}}$
Avestan

→ Relative pronoun *ya*- < IE *ʔo*- is used

- usually located between head and modifier

- usually shows case agreement with the head

stārm yəm tištrīm ‘the star [which is] Tištriya’

hača żemāt yat paθanayā “from the wide earth”
Avestan

- substantivizer of quality nouns

\( y\ddot{a} dr\ddot{a}guu\ddot{a} \) “the wrong one”

- sometimes modifier comes first

\( y\ddot{a}m Mazd\ddot{a}m Ahur\ddot{a}m \) “Lord the Mazdā”
Old Persian

- A pattern similar to the Avestan one is observed
  - relative pronoun *haya* is used (perhaps an enlargement of Old Iranian *ya-*)

- It behaves as a quasi-article:
  - no predicate
  - sometimes case agreement with head noun
Old Persian

Gaumāta haya maguš “Gaumata REL magian”

martiya haya draujana “man REL liar”

Bardiya ... haya Kurauš puça ‘Bardiya REL Cyrus’s son”

hayā amāxam taumā “REL our family”

Dārayavauš haya manā pitā “Darius REL my father”

xšāyaθiya dahāyūnām tayaišām parūnām “king of lands REL many”
Middle (and New) Persian

→ Old Persian quasi-article eventually agglutinates to the head noun (rather than to the modifier)

- hence the *ezāfe* in (Manichaean) Middle Persian MP, ManMP *ʿy(g)* (phonetically *ī*) → New Pers. -*i*

- head-marking, clitic, phrase morpheme

\[ X-EZ Y \text{ encodes } [[X_{head}]_{NP} Y_{mod}]_{NP} \]
Middle (and New) Persian

➡ Middle Persian (on its way from REL to EZ):

$sr \ 'y \ wysp\'n \ wyhyh\'n$ “head EZ all wisdoms”

$nwhz\'dg \ 'yg \ trkwm\'n$ “Nuhzadag EZ interpreter”

➡ New Persian ($ez\'fe$ fully grammaticalised, practically no overt adjectives):

$lab-i \ la\'l$ “a ruby lip” vs. $la\'l-i \ lab$ “the ruby of the lip”
Greek

- Adjectives are derivatives, no special endings

- New article is created: ὁ, ἡ, τό (ho, hē, to)
  - from IE demonstrative pronoun *so, *seH₂, *tod
  - in Homer very often still demonstrative
  - in Homer partly overlapping with relative pronoun ὁς, ἡ, ὁ < IE *iōs, *iēH₂, *iōd
Greek

- Three possible orderings of \{Art Adj N\}

1. ὁ ἀγαθὸς ἀνήρ (ho agathos anēr)
2. ὁ ἀνὴρ ὁ ἀγαθός (ho anēr ho agathos)
3. ἀνὴρ ὁ ἀγαθός (anēr ho agathos)

- Article used for encoding constituency

\[
\text{ART}_X \ \text{ART}_Y \ \text{encodes} \ \ [X \ Y]_{\text{NP}}
\]
Greek

- Ordering n. 3 disappears diachronically

<table>
<thead>
<tr>
<th></th>
<th>1&lt;sup&gt;st&lt;/sup&gt; ordering</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; ordering</th>
<th>3&lt;sup&gt;rd&lt;/sup&gt; ordering</th>
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<td>some</td>
</tr>
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<td>Tragedy</td>
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<td>Xenophon</td>
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<td>rare</td>
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<tr>
<td>Attic oratory</td>
<td>prevalent</td>
<td>some</td>
<td>any</td>
</tr>
</tbody>
</table>
Greek

- Parallel to Avestan and Old Persian “quasi-article”

- Demonstrative or relative is irrelevant:
  - relative vs. demonstrative meanings are “confusible”
  - partial homophony (orthographic differences are late)
  - functions are partly overlapping, especially in Homer
Slavic

- A new class of adjectives by agglutination of the relative pronoun to nominal stems
  - this pronoun is almost as short as a flection:

  jī, ja, je < from IE *i̯os, *i̯eH₂, *i̯od

  môžū dobrūjī “man good-ADJ”

  vūpadūšaago i prězīrěna “of fallen and mistaken”
Slavic

→ Very similar to Avestan and Persian, but

- bound (not completely in the oldest sources: allows hiatus; sometimes *Gruppenlexion*)

- dependent-marking rather than head-marking

- after agglutination creates lexicalised adjectival class

  • no adjectives in Modern Persian
Germanic

→ Creation of the so-called “strong” adjectives

- “weak” declension does not distinguish nouns from adjectives

- “strong” endings are of pronominal origin

- no trace of agglutination of a pronoun

but such hypotheses have been made (Leskien 1876)
Germanic

- Modern Germanic languages have also created a definite article
  - must be considered a Gen3 feature since the source for such articles are different in each case
  - in Gothic still looks a bit artificial

Streitberg: calque vs. Sauvageot: original phenomenon
Khotanese

- Two sets of endings:
  - shorter ones for nouns (usually just one vowel)
  - longer ones, of pronominal origin, for adjectives
  - adjectival endings are in the oblique cases
  - origin is debatable: agglutination is not to be excluded
Khotanese

- Oblique endings with nasal element

- perhaps from a pronominal stem *ana- as in Slavonic onŭ “he”, Lithuanian anâs “that”

LocSg m/: -aña, -äña; f: -iña

Inst/AblSg m: -ana, -äna; f: -äñe, -äñi
Khotanese

→ Oblique endings with palatal element

Gen/DatSg m/f: -ye (perhaps contraction of *-ahya)

- diachronically unrelated to the relative pronoun ye < *kye, nor to Old Iranian *ya- or *haya-

- but a synchronic perception of relation cannot be excluded
Khotanese

→ Examples:

tyāṣṭāye hvaṇḍā “of/to hated man”

haustāna śīna “by best effort”

natāña rahāśśa “in deep secret”
Prakrit

- Locative (often absolute) has two variant endings
  - the longer one is from Sanskrit pronominal -asmin

- Pischel: they alternate freely or metri causa

- Data from Hala’s Sattasai
  - the two forms come almost always in couple
  - group flection or dependency?
Prakrit

Dir. Loc -amanī either on head or on modifier

- but semantics is not always obvious

\[\text{diṭṭhe sarisamanī guṇe} \text{ “viewing similar quality”}\]

\[\text{putte samāruhattamanī} \text{ “[when] the son [is] climbed up”}\]

\[\text{vāsuikaṃkaṇamamanī osārie} \text{ “[being] the snake-bracelet removed”}\]
Similarly in Pāli, in Ablative and Locative (often absolute):

setamhi chatte anudhāriyamāne “[with a] white umbrella held above”

kassapamhi bhagavati “[while] Lord Kassapa”
Conclusions

A contact-induced innovation could be suggested

- Center of the innovation: Avestan, Persian, Balto-Slavic

- Later contact: Germanic, Khotanese and Prakrit

- Early contact, eventually diverging: Greek
Conclusions

➡ What unity can be observed?

- Meillet 1934 connects Balto-Slavic to Avestan

- Leskien 1876 (and others) connects Germanic strong adjectives to Balto-Slavic ģī-adjecitives

(Also, Neckel 1990 connects Germanic article to Greek and Iranian)
Conclusions

➡ My suggestion:

- similarity of Greek 3rd ordering with Persian “quasi-article”

- similarity of Khotanese system with Slavic/Germanic

- partial similarity of Middle Indian with Khotanese etc.

➡ Open question: should we consider it an isogloss or just a natural development?
Evolution types

Head REL Modifier

➡ Persian: Head-EZ Modifier

➡ Slavic, etc: Head Modifier-ADJ

➡ Greek: ART Head ART Modifier
## Parameters

<table>
<thead>
<tr>
<th>Source</th>
<th>Marking</th>
<th>Status</th>
<th>Position</th>
<th>Adjectives</th>
</tr>
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<tbody>
<tr>
<td>Greek</td>
<td>demonstrative</td>
<td>both</td>
<td>clitic</td>
<td>pre-adj. class</td>
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<tr>
<td>Persian</td>
<td>relative</td>
<td>head</td>
<td></td>
<td>no adj. class</td>
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<tr>
<td>Slavic</td>
<td>relative</td>
<td>head</td>
<td></td>
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</tr>
<tr>
<td>Germanic</td>
<td>pronominal endings</td>
<td>modifier</td>
<td>(increasingly) bound</td>
<td>-post new adj. class</td>
</tr>
<tr>
<td>Khotanese</td>
<td>pronominal endings</td>
<td>alternant</td>
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<td></td>
</tr>
<tr>
<td>Middle Indic</td>
<td>pronominal endings</td>
<td>alternant</td>
<td></td>
<td></td>
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</tbody>
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References

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