Identification and Annotation of Body Part Multiword Expressions in Old Egyptian

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1. Definition of Body Part Multiword Expression
A body part MWE may be defined as a sequence of at least two lexicalized components, one of which is a body part name, whose semantic idiosyncrasy results from the association of a body part with a figurative meaning and another component(s), for example:

1. English:
   LM: “Listen to your heart.”
   FT: “You may be calm (i.e. satisfied).”
2. Latin (Plant., 4.84, 729):
   nec captat nec pes
   LM: “Neither head nor foot.”
   FT: “Completely wrong.”

2. Methodology
The selection and identification of Old Egyptian body part MWEs was carried out through a series of verification tests:

Test 1. Does the body part noun have a literal meaning?
   - Yes ⇒ It is an MWE, for example:
     FT: “Hail to you!”
     LM: “Your will shall guide you”
   - No ⇒ It is not an MWE, see test 1:
     FT: “Act according to your feelings.”
     LM: “Listen to your heart.”

Test 2. Does the body part noun have a metonymic meaning?
   - Yes ⇒ It is a potential MWE ⇒ Test 3, for example:
     FT: “Your will shall guide you”
     LM: “A warm man of heart.”
   - No ⇒ It is not an MWE, for example:
     FT: “Completely wrong.”
     LM: “Neither head nor foot.”

Test 3. Is the body part noun used with an idiosyncratic meaning in close syntactic relationship with a head word?
   - Yes ⇒ It is an MWE, for example:
     FT: “Seize for yourself his arm.”
     LM: “Seize his arm!”
   - No ⇒ It is not an MWE, see test 1:
     FT: “Act according to your feelings.”
     LM: “Listen to your heart.”

Test 4. Does the body part noun have a figurative meaning?
   - Yes ⇒ It is an MWE, for example:
     FT: “You may be calm (i.e. satisfied).”
     LM: “Neither head nor foot.”
   - No ⇒ It is not an MWE, see test 1:
     FT: “Act according to your feelings.”
     LM: “Listen to your heart.”

3. List of body part nouns used in Old Egyptian MWEs

<table>
<thead>
<tr>
<th>Body Part Noun</th>
<th>Figurative Meaning</th>
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</thead>
<tbody>
<tr>
<td>arm</td>
<td>heart</td>
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<tr>
<td>foot</td>
<td>face</td>
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<tr>
<td>hand</td>
<td>body</td>
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<td>head</td>
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4. Typology
Old Egyptian body part MWEs can be classified according to a universal typology as nominal, prepositional and verbal.

4.1 Nominal Multiword Expressions
The head word accompanying the body part noun can be a noun, an infinitive, an adjective or a participle:

FT: “Seize for yourself his arm.”
LM: “Seize his arm!”

4.2 Prepositional Multiword Expressions
Body part nouns are used as modifiers in prepositional multiword expressions. Two types of PMWEs can be found in Old Egyptian: prepositional idioms (PIs) and complex prepositions (CPs):

FT: “Under the care of (my) eldest son.”
LM: “A warm man of heart.”

4.3 Verbal Multiword Expressions
Body part nouns are also modifiers in VMWEs. Old Egyptian body part VMWEs are usually verbal idioms (VIs) consisting of a verb as a head and a body part noun with a figurative meaning:

FT: “He fed Uosas.”
LM: “(…) he fed Uosas.”

5. Conclusion
Research on MWEs in Egyptian will be continued following these phases:
1) Publication of the selected examples in PARSEME after having annotated them manually in the Universal Dependencies treebank “Egyptian-Ujaen.”
2) Identification and classification of new Old Egyptian MWEs following the rules discussed in this paper.
3) Once the synchronic study of MWEs in Old Egyptian is completed, their analysis in later stages of Egyptian will follow in order to identify changes during their historical development.