Semantic maps

Questions … and some possible answers from an outsider

Jean Winand (Liège)

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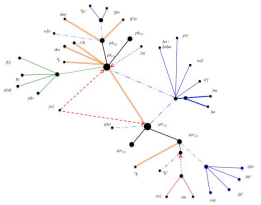
Opening address

Semantic maps:
Where do we stand and where are we going?

Liège – 27 June 2018



Historically, semantic maps

- deal with morphs,
- are synchronic,
- are typologically oriented, i.e. based upon inter-linguistic comparisons,
- are a tool for presenting results.

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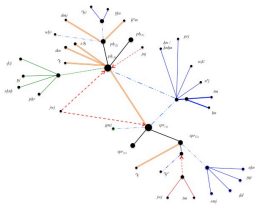

As Egyptologist, I feel deeply concerned by the following issues:

1. how the corpus is constituted (a recurrent question in typology, but also in comparative linguistics);
2. how to use semantic maps with an open lexicon (not only morphs);
3. how to integrate dynamicity, or at least some kind of temporal vectoriality;
4. are semantic maps tailored for the (fine-grained) study of one single language?
5. how to integrate semantic maps into a larger project, to be more precise, how to plug semantic maps in a dictionary ?

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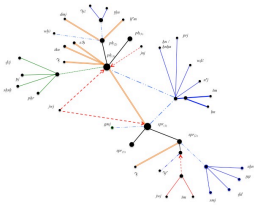

1. The corpus

- the validity of the data (informants, thesauri, existing dictionaries)
  - specific questions for dead languages, more specifically isolated dead languages with a broken tradition, like Ancient Egyptian;
  - linguistics with(out) philology?

- selected examples, samples of examples, or (quasi-)exhaustiveness?

- corpus that allows statistical approaches?

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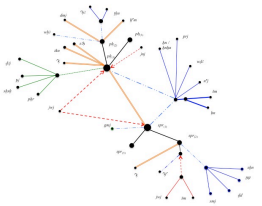

2. Close or open vocabulary?

- Semantic maps were first used to treat grams (negations, modal operators), and connectors, like prepositions.

- They gradually opened up to open lexical lists.
  - This is what I am interested in,
    - with a first low-scale project on the verbs of cognition (Winand 2015),
    - and a more ambitious project (still in progress) on the verbs of motion in Late Egyptian, (350+ different lexemes representing roughly 10.000 tokens).

- Two different perspectives:
  - The top-down approach (esp. for grams and morphs),
  - The bottom-up approach (for open vocabulary, even if some preliminary general ideas are inevitable, and necessary)
    - This once more highlights the relevance of a sound philological study

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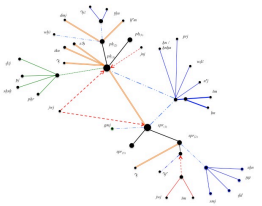
3. Dynamicity (diachrony)



- There is (almost) nothing that could be really called a synchronic stage in any linguistic study of Ancient Egyptian.
- Diachrony amounts to reconstructing vectorialities leading from one stage to the next one. This comes with a lot of questions:
  - how to explain the semantic processes at work (restriction or extension of meaning, metaphorical or metonymic uses, etc.)? do we need to do so?
  - how to assess the productivity of a connection: is it central or peripheral in the history of the language?
  - This last question brings with it the issue of the quantitative analysis of the data
    - For the dead languages,
      - it largely depends on how the corpus has come down to us,
      - how well it is distributed according to different criteria (date, provenance, textual genres, etc.).
    - For modern languages, it depends
      - on how fine-grained the (now largely electronic) thesauri one relies on are analyzed.
      - For exotic languages, the quality of the informants, the validity of the dictionaries must be relentlessly questioned.

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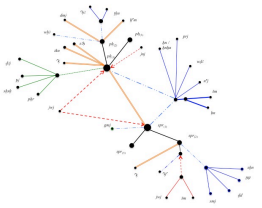
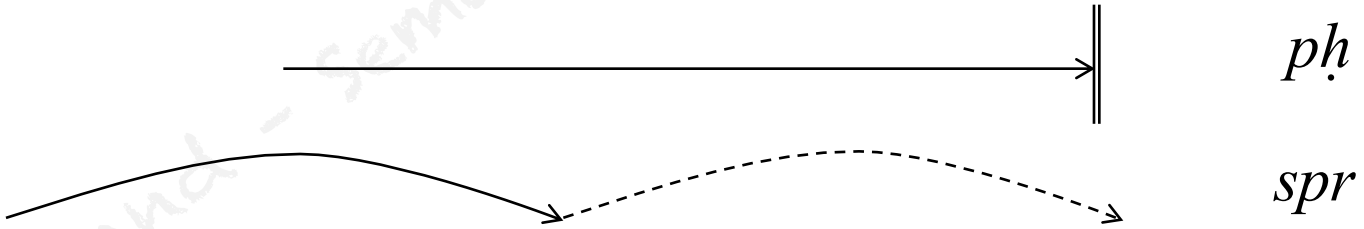
4. One or several languages?



- Semantic maps were first intended to compare several languages. Interesting results have however been achieved by comparing two genetically related languages.
- The decisive criterion is of course comparison. But comparing between what?
  - One can deal with lexemes, or rather lexical units, involved in any semantic domain (parasynonyms)
    - That was the aim of the contrastive study of two semantically very close Egyptian verbs, *pḥ* and *spr*, both meaning "to reach", but from two different perspectives;



  - It is also possible to compare different synchronic stages for one single semantic domain:
    - that was a significant part in the study on verbs of cognition in Earlier Egyptian, embracing more than one millennium of data.

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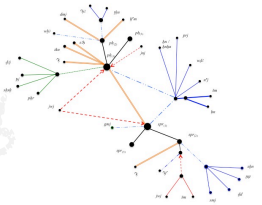
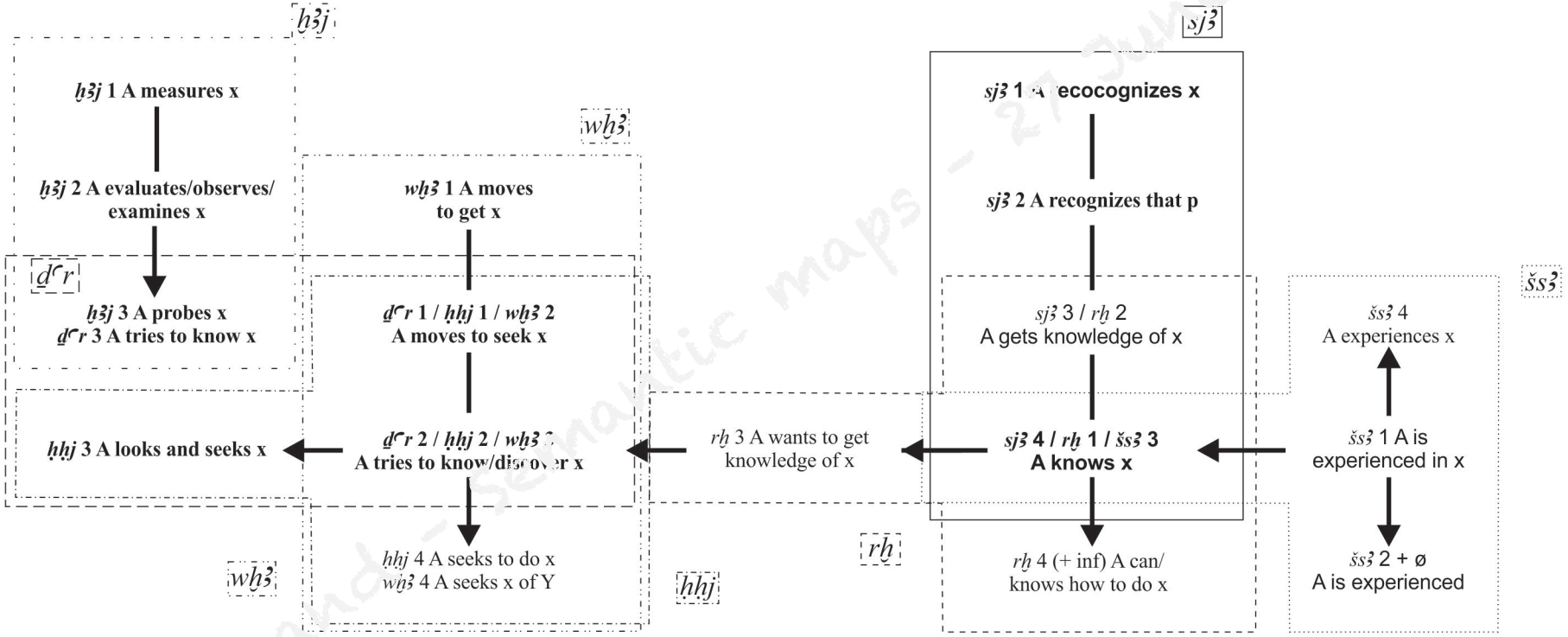


resultative achieved achieved **achieved / unachieved** unachieved



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J. WINAND, *The Syntax-Semantics Interface in Earlier Egyptian: a Case Study in Verbs of Cognition*, dans J. Allen, M. Collier & A. Stauder (éd.), *Coping with Obscurity: the Brown Workshop on Earlier Egyptian Grammar*, Atlanta [*Wilbour Studies in Egyptology and Assyriology*, 4], 2015, p. 109-139

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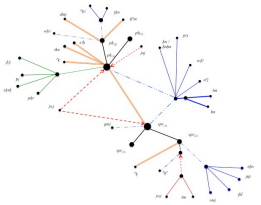

5. Semantic maps: a stand-alone, autonomous product, or a part of a larger project?

- an insightful manner of presenting results,
- a powerful tool for asking new questions,
- a possible interface for organizing dictionaries and lexica.

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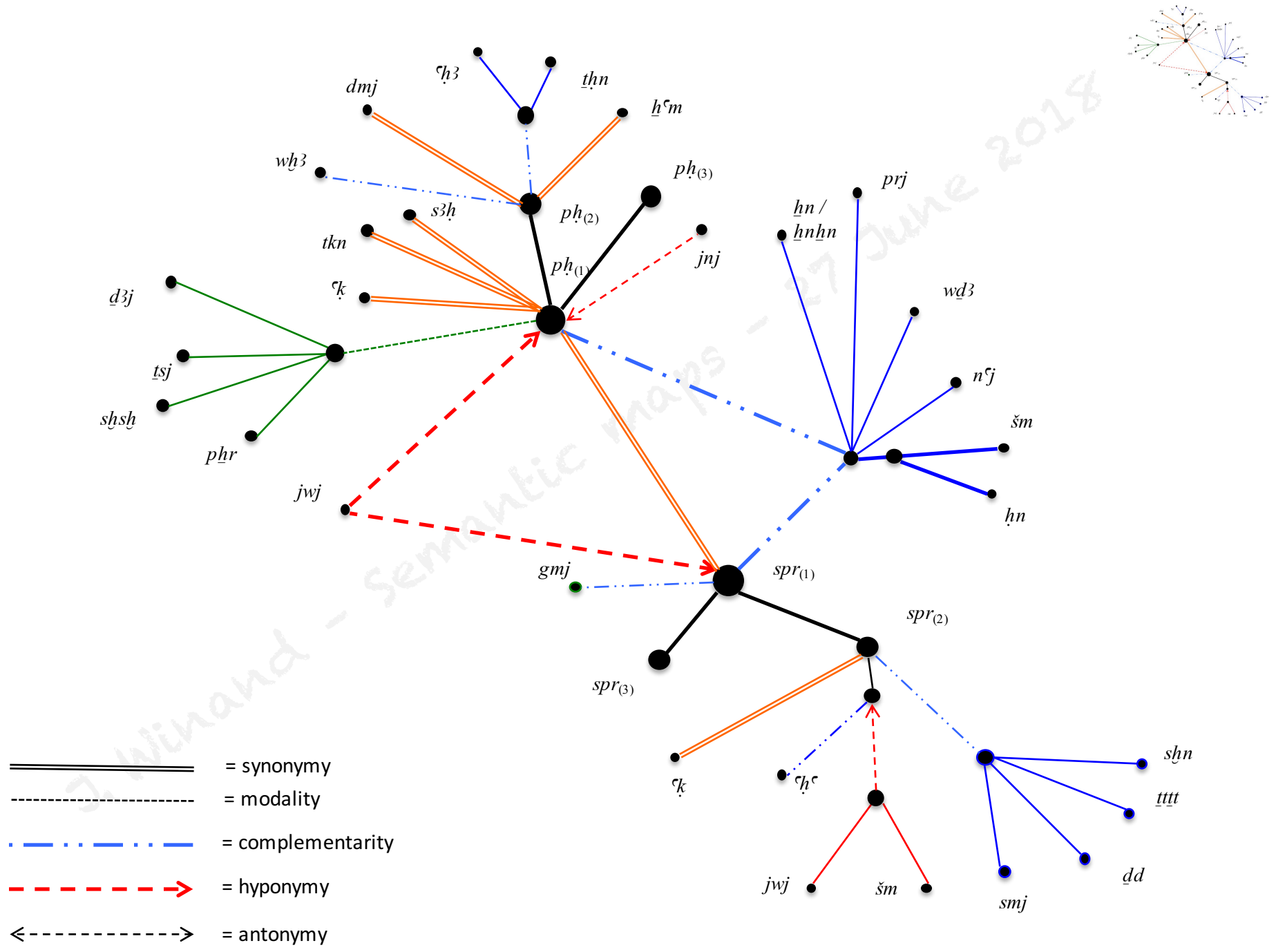
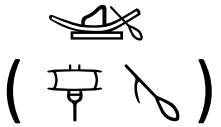

dmj
ʔḥ3
tḥn
ḥʔm
wḥ3
pḥ(3)
s3ḥ
pḥ(2)
tkn
pḥ(1)
jnj
ʔk
d̲3j
ts̲j
sḥsḥ
phr̲
jwj
prj
ḥn / ḥnḥn
wd̲3
nʔj
šm
ḥn
gmj
spr(1)
spr(2)
spr(3)
ʔk
ʔḥʔ
jwj
šm
smj
sḥn
ttt̲t̲
d̲d
= synonymy
= modality
= complementarity
= hyponymy
= antonymy

The graphic system of ancient Egyptian as a principled way of organizing the lexicon

The system of the semantic classifiers

moving legs

moving legs (backwards)

 navigating (boat, sail, oar)

flying

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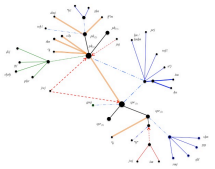
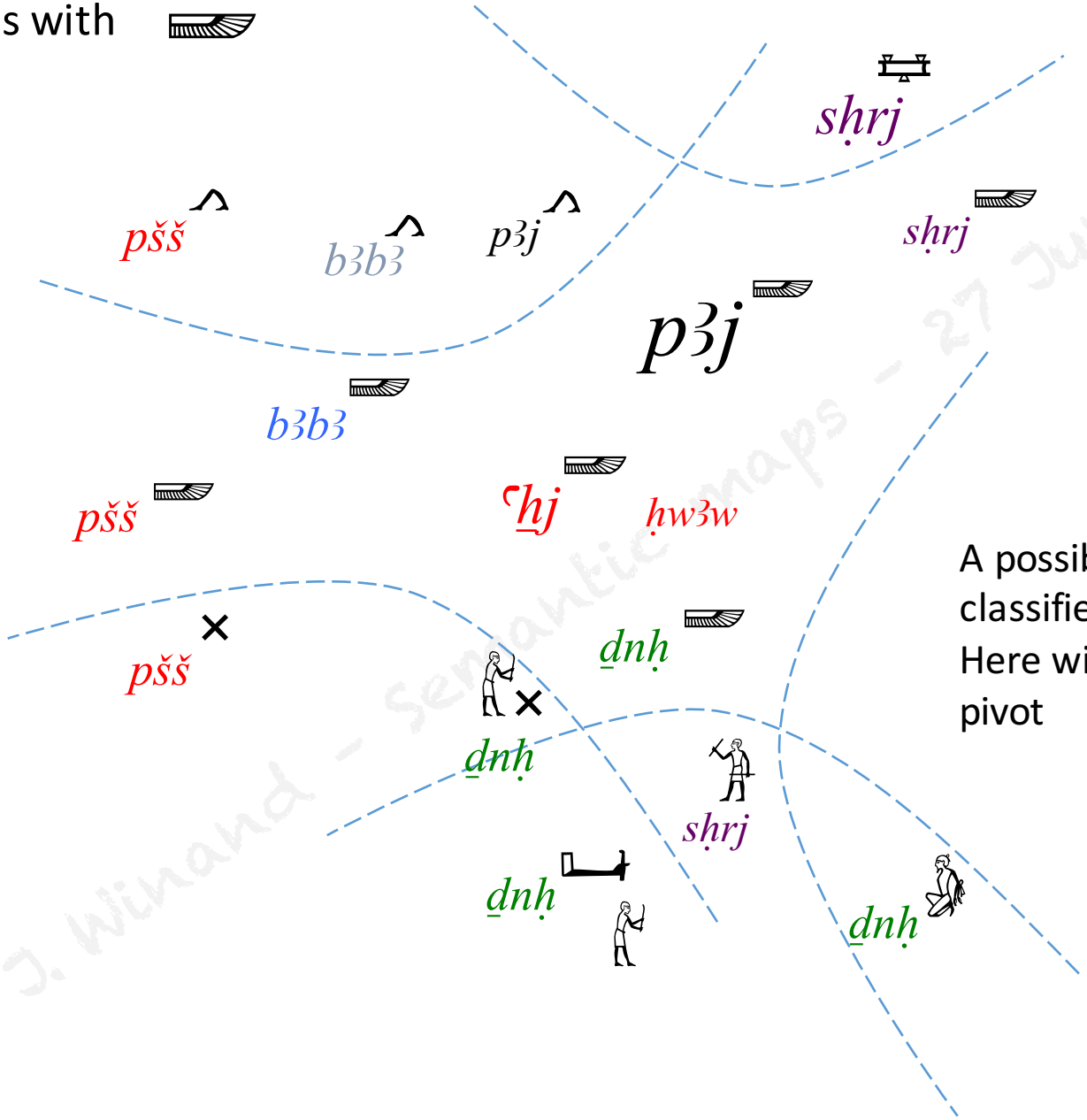
verbs with





A possible semantic map of for classifiers ?
Here with the wing classifier as pivot

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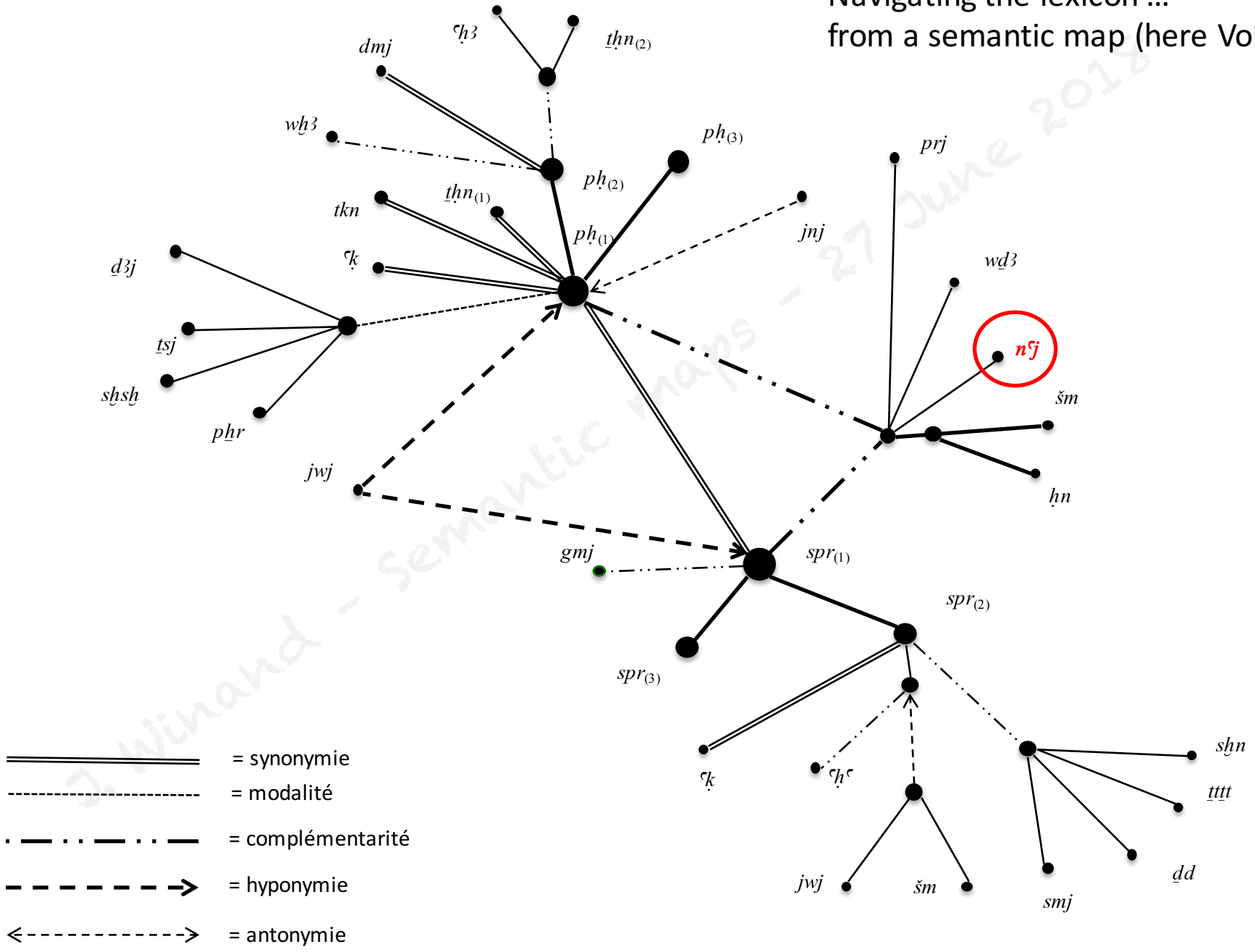
Navigating the lexicon …
from a semantic map (here VoM) …



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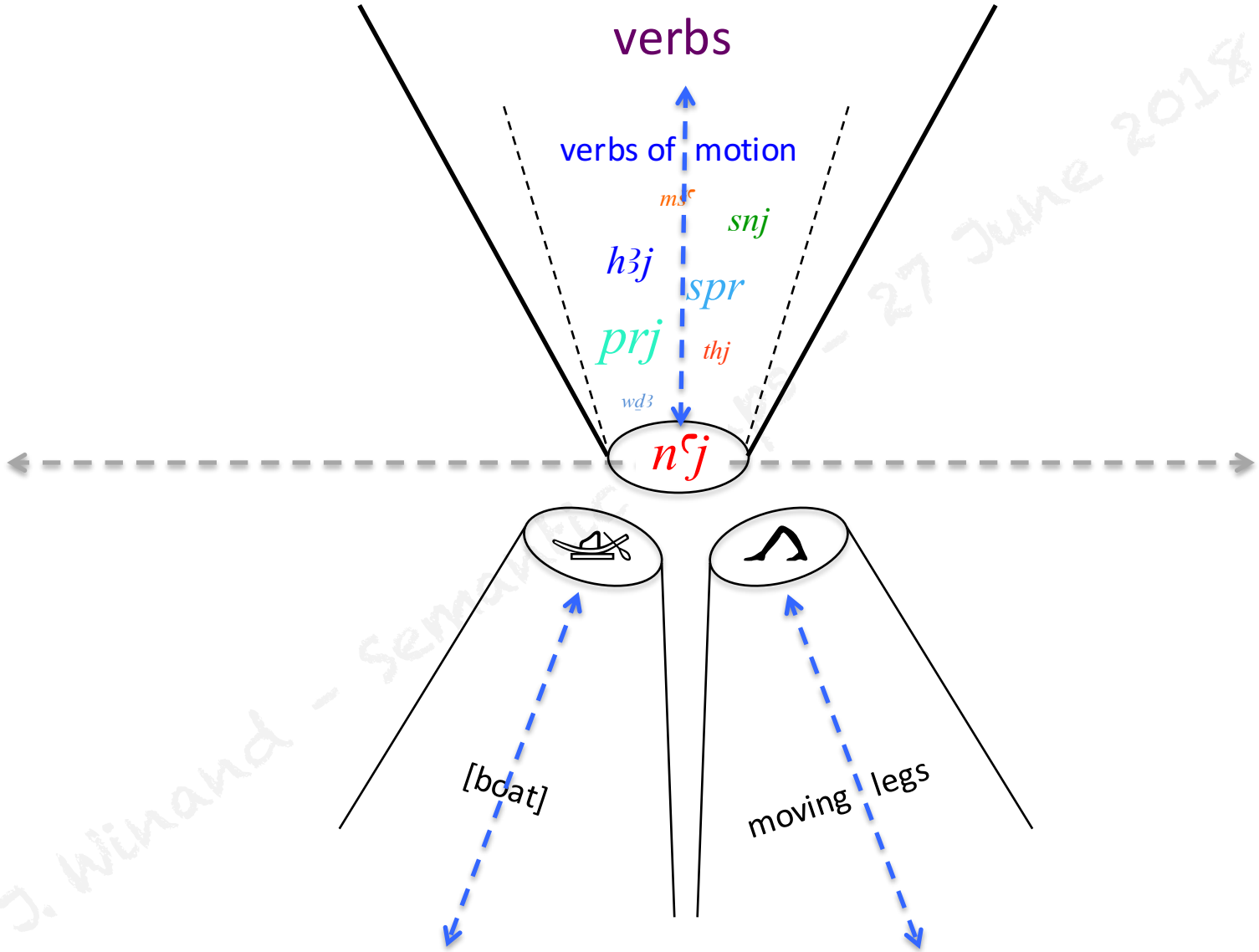

Navigating the lexicon …
to a general database of Egyptian words

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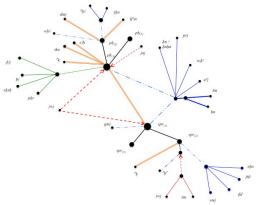
6. By way of conclusion



Who should be involved?

- specialists of a (several) linguistic domain(s), with a sound philological experience
- linguists interested in modelling (typologists, comparatists, cognitivists)
- IT-guys

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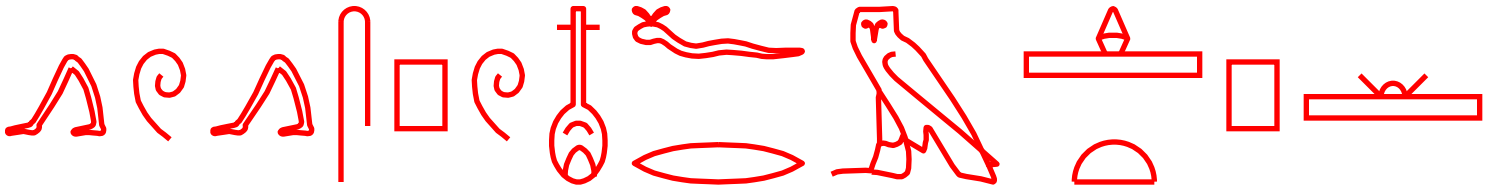

"That's all Folks!"