

# Ancient Egyptian Prepositions for the Expression of Spatial Relations and their Translations

A typological approach

Daniel A. Werning, Berlin

## Abstract

The article explores the static spatial meaning of basic prepositions in Hieroglyphic Ancient Egyptian, as compared to eight modern target languages. The *tertium comparationis* is the typological-linguistic tool of the Topological Relations Picture Series. The author identifies as the basic meanings of some Egyptian prepositions: *m* IN and FROM; *r* ATTACHED, CLOSE\_TO, and TO; *hr* SUPERIOR (i.e. VERT\_ON + ABOVE) and AT; and *hr* INFERIOR (i.e. UNDER + BELOW); as well as *m hnw* INSIDE and WITHIN, and IN\_THE\_MIDDLE; *dp* (trad. *tp*) head.LOC, AT\_TOP, and AHEAD; *hr dp* ON\_TOP and ABOVE. Further, he highlights the case of the conflation of the meanings BEHIND and AROUND in *h3*, as well as the phenomenon of a ‘Paradoxical Figure–Ground Reversal’ as exemplified by Egyptian *wrrt m dp* (lit. great\_crown IN head) ‘the Great Crown on the head’. Finally, the author suggests decomposing the dynamic meanings of prepositions as well as the dynamic meanings of verbs. He supports the analysis that, in contrast to e.g. English, in dynamic contexts, Egyptian prepositions often only encode the static source or goal configuration, but not the path proper.

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## §1 Research background and acknowledgements

This article is only one of two articles on the expression of static spatial relations in Ancient Egyptian as compared to other languages. The other article explores the topic with a focus on a cross-linguistic, general typological perspective (Werning, in print). The present article, on the other hand, focuses more specifically on the Egyptological perspective. Actually, it is two perspectives that are going to be addressed here. One is the perspective of the Egyptological linguists. This study contributes to a more adequate understanding of the lexical means to express spatial information. Although it mainly deals with static spatial relations, it also has a certain impact on the analysis of dynamic spatial relations, i.e. movement (§5.2). The other Egyptological perspective addressed here is that of the translator. We will become aware of systematic differences between the expression of spatial relations in Egyptian as compared to some modern languages, into which Egyptian texts are commonly translated. Various tables are designed to encourage and help the translator to choose an adequate translation — not an ‘equivalent’ to be sure, but a natural language ‘trans-lation’.

The study has been financed by the Berlin Exzellenzkluster 264 ‘TOPOI – The Formation and Transformation of Space and Knowledge in Ancient Civilizations’, as part of the project ‘On the diachrony of spatial terms in Egyptian and Coptic’ within the research group ‘The Conception of Spaces in Language’, headed by Frank Kammerzell. Besides many enthusiastic discussions with my research fellows, especially Camilla Di Biase-Dyson, Eliese-Sophia Lincke, and Ulrike Steinert, it owes greatly to the engagement of the general linguist Silvia Kutscher. As to the study itself, I have to especially thank 46 native-speakers of Tunisian Arabic, English, French, German, Hebrew, Italian, Russian, and Spanish — colleagues as well as their and my own friends and family —, who took the trouble to answer questionnaires designed to explore their natural native language use. Any misinterpretations of their input is of course to be attributed to myself.<sup>1</sup>

## §2 Introduction

Dictionaries, grammars, as well as lexical studies offer ‘translations’ for simple prepositions, e.g. *ḥr* – “upon” or *ḥr* – “on”.<sup>2</sup> We are going to see to which extent these translations are appropriate or inappropriate as descriptions of the meaning of the preposition proper or only as descriptions of the most natural translation equivalent.

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1 Some informants have opted to stay anonymous. Those who were not specifically opposed to being named, I wish to thank explicitly: Andrea R., Andrew W., Andy G., Anna A., Antonio José R. A., Camilla D.-D., Charlotte L., Christian O., Daniel G., Daniele S., Diana N., Dina S., Dorothee E., Frank S., James, Jana H.-D., Jasmin Sch., Maria Teresa S.-T., Niv A., Racheli Sh.-H., Renate F., Sacha S., Stéphane P., Susanna M., Suzette H., Tatjana N., Terrence D., Tobias E., Vincent R., Yesilda B. (I hope not to have missed someone here). Special thanks go to Mag. Annette Sundermeyer, who helped me mining and interpreting the Tunisian Arabic data, as well as to Camilla Di Biase-Dyson, who checked my English for gross mistakes.

2 E.g. *ḥr* — “strictly ‘upon’: [...] on”: Gardiner (1927, <sup>3</sup>1957: §165), Beylage (2008: 86); “on”: Loprieno (1995: 100), Depuydt (1999: §3.39), Gracia Zamacona (2010b: 244); both “on” and “upon”: Budge (1911: 268, 1920: 492), Englund (1988: 13), Allen (2000, <sup>2</sup>2010: ch. 8.2).

Both are not exactly the same. If we understand Gardiner's "strictly 'upon'" as 'vertically on', it would nicely explain the static spatial meaning of *hr* (actually only one of a set of a few more), but "upon" does not correspond to the most natural translation equivalent of *hr*. "On", on the contrary, is the most natural translation equivalent; but it fails to adequately describe its meaning. English *on* covers some relations that are not covered by Egyptian *hr*, but by *r*, as we will see.

We are also going to see to which extent native-speakers of one language are better prepared to grasp the meaning of Egyptian spatial prepositions than those of others. Some scholars are familiar with certain lexical distinctions in the realm of the expressions of static spatial relations in their native-language. These certainly have an easier job than those in whose native-language there is no comparable lexical split. This does not mean, of course, that the latter cannot understand these differences — they just have a harder time. For example, native speakers of German and French have — as I am going to demonstrate — excellent prerequisites to understand the static(!) spatial meaning of the preposition *r*, while they have 'natural' difficulties with understanding the difference between *m* and *m=hnw*. The reverse holds true for native speakers of e.g. English. Therefore, e.g., the concluding remark of the German scholar Günther Roeder in his 1904 dissertation on the meaning of *r*, will not help any scholar who is not very familiar with German *an* (or Dutch *aan*):

"Andererseits könnte diese ursprüngliche Bedeutung der Praep[osition *r*] auch diejenige sein, die allein in dem abgeleiteten Adjektivum [*jr.i*] vorliegt: ‚an‘; deren Anwendungen wären dann:

[*r*]      **an** etwas befindlich      –      **an** etwas heran      –      von etwas weg

Dafür spricht, dass auch andere Praepositionen eine ähnliche Bedeutungsgruppierung zu haben scheinen:

[*m*]      **in** etwas befindlich      –      **in** etwas hinein      –      aus etwas heraus

[*hr*]      **auf** etwas befindlich      –      **auf** etwas hinauf      –      von etwas weg

[*hr*]      **unter** etwas befindlich      –      **unter** etwas hinunter."

(Roeder 1904: 50 [bold face: D.W.])

In the worst case, a reader who is not familiar with German might be tempted to use the first and main translation equivalent given in a simple German–English dictionary: *an* – "on"<sup>3</sup>. Doing so, they would completely miss the whole point of Roeder's hypothesis:

*r*              being **on** s.th.      –      near **on** s.th.      –      away from s.th.

*hr*             being **on** s.th.      –      up **on** s.th.      –      away from s.th.

But even a more sophisticated dictionary-based translation of Roeder's hypothesis — with a good portion of input from the present study — would not perfectly reflect the issue.

*r*              being **on/at** s.th.      –      **near to** s.th.      –      away/off from s.th.

*hr*             being **on** s.th.      –      **up on(to)** s.th.      –      away/off from s.th.

3 E.g. *Langenscheidts Schulwörterbuch Englisch* (Berlin /München / ...<sup>3</sup>1986: Langenscheidt).

Both the English prepositions *at* and *on* can be used to express relations that are not covered by Egyptian *r*.

I suggest that a cross-linguistic semantic meta-language will be very helpful to bypass the outlined problem.

### §3 Data mining and evaluation method

In typological linguistics, there is a useful tool for exploring the ‘semantic space’ of spatial relations in languages. Melissa Bowerman, Eric Pederson, and the Language and Cognition Group of the Max Planck Institute for Psycholinguistics have developed a series of more than 70 pictures that display a variety of static spatial relations: the Topological Relations Picture Series (TRPS; Bowerman&Pederson 1992). In the case of non-extinct languages, these pictures serve as a meta-linguistic stimulus. Informants are asked to give a simple answer to a simple *where*-question, e.g. “*Where is ... [the thing that the arrow points to]?*”. The syntactic form of the most common answer is called the Basic Locative Construction (Levinson & Wilkins 2006: 15f). Conveniently enough, the BLCs of Egyptian as well as of the modern target languages basically employ prepositional phrases to express the spatial relation. While some languages, like e.g. German, quite regularly employ a positional verb along with the preposition (“*Die Tasse steht auf dem Tisch*”), others like English do normally simply use the copula verb ‘to be’ (English “*The cup is on the table*”), or even no verb at all (Hebrew “*h-spl ‘l h-šwlh*” THE-cup ON THE-table; Middle Egyptian “*t hr wdhw*” bread VERTICAL\_ON altar).

There cannot be a doubt that the BLC of Hieroglyphic Ancient Egyptian is the Adverbial Sentence with a prepositional phase as predicate: *figure* PREPOSITION *ground*.<sup>4</sup> This is the type of sentence that has been explored for this study in order to shed light on the issue in Egyptian.<sup>5</sup> Unfortunately, I could of course not always find exactly the same configurations in the Egyptian data that are displayed in the TRPS. What I did was to look for maximally similar configurations. Note that I was fully aware that this was the most dangerous step in the method employed as far as the demand of an unbiased data mining process is concerned. Intensive discussions of general typological literature, however, made me and the other members of our research group reflect on a lot of parameters at issue.<sup>6</sup> The prepositions themselves were decidedly not what served as the starting point in my search. Instead, I tried to think of ‘items’ (figures) and ‘places’ (grounds) similar to the ones displayed on the TRPS. In doing so, I was hoping to find proper text examples by chance. As a result, my research was very free of any preoccupations concerning the use and meaning of prepositions in Egyptian. Moreover, it can also be largely excluded that the results presented here are simply biased by my own native language, German.

4 For the notions of ‘figure’ and ‘ground’, see Talmy (2000.I: ch. 2.1.2, 5.1–2).

5 Note that I specifically avoided using sentences with verbs other than *wmn* ‘to be present’ (Winand 2006: 110) for this study. The potential impact of verbs on the choice of prepositions cannot be ruled out otherwise (cf. Junge 1973: 86f; Lehmann 2005: §3.2.3; Van der Gucht *et al.* 2007: §5).

6 Cf. Feist 2010, 2008; Brala 2007; Kokorniak (2007: 122); Levinson&Wilkins 2006: 9f, 515; Vandeloise 2003, 1994; Talmy 2000.I: 241; Herskovits 1986: tab. 4.1.

Comparing the input of the informants for individual languages, we can form groups of scenes according to the prepositions that they used. It turns out that the informants all use the very same preposition for some pictures (e.g. ‘cup – *on* the table’). But in the case of other pictures, they disagree on the choice of prepositions (e.g. ‘ship – *on/in* the water’). The groups themselves therefore have an internal structure. The pictures for which most informants agree on the preposition to be used form the ‘prototypical’ core of the groups, while the others are fuzzy edge members on the periphery. We can then try to arrange the pictures on a two-dimensional map in such a way that the similarity of the informants’ input conforms with their closeness on the map (see Levinson & Meira 2003). The core members are distributed across the map, and the fuzzy edge members are placed between these cores. Effectively, it is the fuzzy edge members that determine the arrangement of the cores on the map. The map of pictures becomes a diagram of the use of prepositions for spatial relations for the respective language (cf. the plates I–VIII below). And, as a working hypothesis, we could take this structure as a diagram of the semantic structure of the lexical field, or even as the cognitive structure of the language (speakers).

In a further step we try to arrange the map in such a way that it does not only properly reflect the semantic structure of one language, but of many if not all languages. The resulting map is a hypothesis on a cross-linguistic cognitive structure. This is the structure that we look for as the basis of our meta-language to describe the meaning of prepositions.

A general assumption is that if some language treats two different areas on the map differently, i.e. they use different prepositions for them (e.g. English *on* vs. *above*); then the borderline between the two is indeed a cognitive borderline in human cognition — even if not all languages display that split, e.g. VERT\_ON vs. ABOVE. Indeed, not all languages use different prepositions for all the resulting areas. Actually, they often conflate two adjacent areas by using the same preposition for both (e.g. Spanish *sobre*  $\approx$  VERT\_ON & ABOVE); or they allow for the same preposition in two areas but for an alternative in only one of the two areas (e.g. *under/unter*, i.e. INFERIOR, with *or* without contact, vs. *below/unterhalb* BELOW, i.e. inferior without contact).

The desire for the map to be somewhat isomorphic with a cognitive structure leads to one formal aim: mapping the use of one preposition onto the map should lead to a single contingent area (Semantic Map Connectivity Hypothesis; Croft & Poole 2008: §2). If the mapping results in two or more islands covered by the same prepositions, then the design of the map is not perfectly adequate. This is basically a monosemic approach, since it presupposes that one preposition has only one (more or less precise) meaning. It has become clear, however, that there is no two-dimensional arrangement of the pictures that perfectly fits literally all languages of the world (Levinson & Meira 2003: 499, 513). We would need more than two dimensions for it (Croft & Pole 2008); in the worst case, as many dimensions as cognitive parameters at issue (and then the map would be pointless indeed). It seems to me that we have to accept some cases of polysemy and, therefore, some cases of ‘islands’ on the map.

For the sake of this study, I have arranged the map mainly based on the languages to be compared in this study, i.e. Hieroglyphic Ancient Egyptian, (Akkadian,) Tunisian Arabic, Hebrew, English, German, Russian, French, Italian, and Spanish.<sup>7</sup>

Language				Chronolects of	Informants (place of birth)
Afro-Asiatic	Egyptian		Egyptian	3rd–early 1st mill. BCE	texts (Egypt)
	Semitic	East Sem.	Akkadian	3rd–1st mill. BCE	texts (Mesopotamia)
		West Sem.	Arabic	turn 2nd/3rd mill. CE	5 (Tunisia)
			Hebrew	turn 2nd/3rd mill. CE	5 (Israel)
Indo-European	Germanic	West Germ.	English	turn 2nd/3rd mill. CE	8 (USA, England, Canada, Australia)
			German	turn 2nd/3rd mill. CE	7 (Germany)
	Italic	Romance	French	turn 2nd/3rd mill. CE	5 (France, Belgium)
			Italian	turn 2nd/3rd mill. CE	6 (Italy)
			Spanish	turn 2nd/3rd mill. CE	5 (Spain, Peru)
	Slavic	East Slavic	Russian	turn 2nd/3rd mill. CE	5 (USSR, Russia)

Tab. 1. Language sample studied

This map is a working hypothesis of a cognitive structure common to these languages. But even if one does not accept it as a realistic diagram of a cognitive structure, it is still a handy tool to display and compare the use of prepositions in these languages. The following fig. 1 displays this map. The nuclei of prototypical meanings are marked and labeled. Throughout this article, SMALL CAPS will correspond to these prototypical nuclei. The labels are the semantic meta-language to describe the meaning of prepositions.

To refer to some important areas on the semantic map, I use the labels ABOVE, ON\_TOP, VERT\_ON, ATTACHED, INSIDE, IN\_THE\_MIDDLE, AROUND, UNDER, BELOW, BESIDE, and NEXT\_TO. Certain groupings of these call for an extra label, i.e. INFERIOR (= UNDER + BELOW) and SUPERIOR (= ABOVE + VERT\_ON; cf. §4.3 below). These areas are meant to be understood as prototypical nuclei of semantic sub-spaces, potentially with fuzzy edges. Some extensions of these nuclei are traditionally called ON (VERT\_ON + certain further adjacent scenes), IN (INSIDE + further adjacent scenes), and OVER (OVERLAPPING + ABOVE).

Note that despite the basis of these labels in the English language, the labels do not always perfectly match the common use of the homophone English words. The need for labels beyond the set and use of prepositions in English makes some unintuitive mis-usages necessary.

<sup>7</sup> For the data on Akkadian, I refer the reader to the corresponding study by my colleague Ulrike Steinert in the TOPOI volume (Steinert, in print). The results for the eight non-extinct languages are displayed on the pls. I–IV, below. For the full raw data on Egyptian and the non-extinct languages, which I have collected, cf. my article in the same volume (Werning, in print). The languages has been designed to include a lot of languages that Egyptian texts are (or were) often translated to.

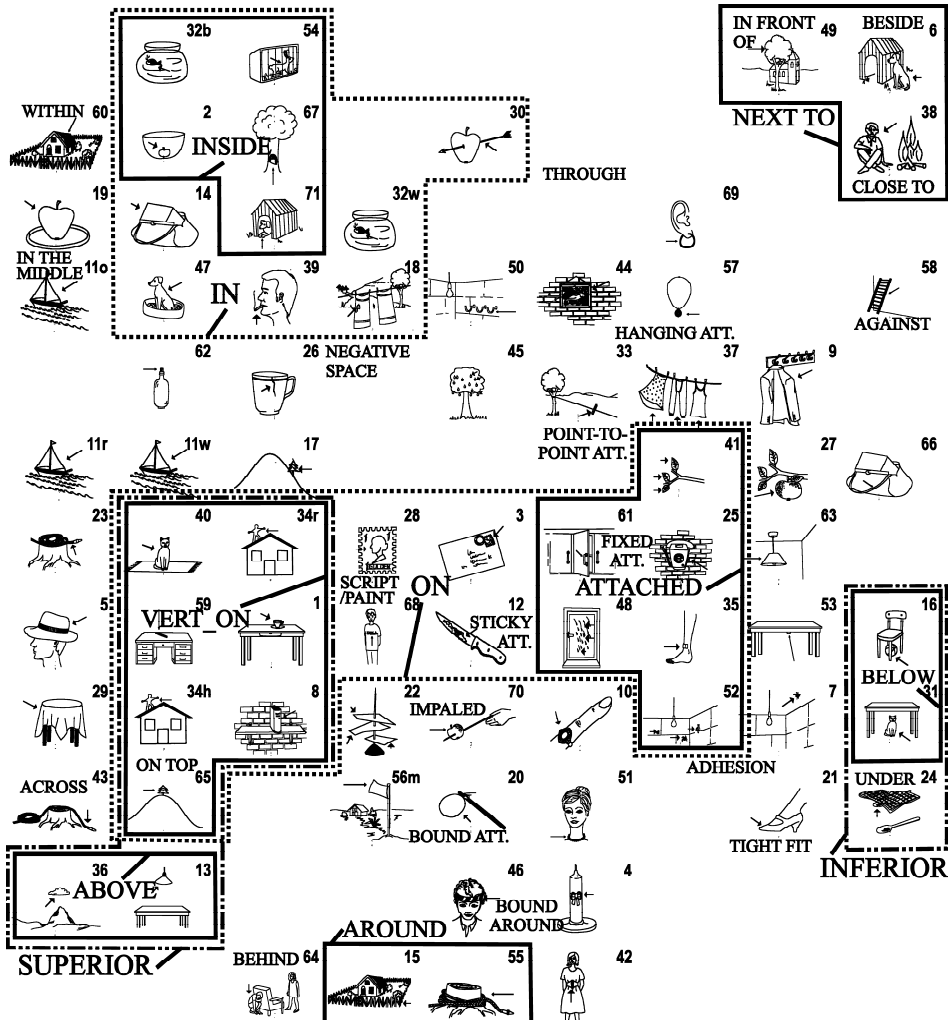


Figure 1. Labels for nuclei of prototypical sub-spaces on the semantic map of static spatial relations (cf. also Levinson & Meira 2003: fig. 8)

#### §4 Structural patterns in Egyptian alien to some modern target languages

Some cross-linguistic similarities are certainly due to close family relations of the respective languages. Others, e.g. some structural similarities of Hebrew with English and Russian are probably due to language contact. Therefore, it is not always the family relation that allows us to predict certain structural patterns. Akkadian and Spanish, e.g., both make intensive use of a General Spatial Term (Feist 2008), namely *ina* and *en*, respectively, which the other languages avoid. And as intuitively hypothesized by Roeder (cf. §1 above), German and Egyptian display a comparable split in the center of the semantic map that many other languages don't have or only indirectly have (split *auf* | *an*  $\approx$  split *hr* | *r*). Also, the area on the semantic map that is






results of my research to a larger Egyptological audience, it was not surprising for me to find that it was a native-speaker of English who intuitively rejected the claim that this split existed. With the means of the semantic map, however we can visually encompass the cognitive chains of our first languages.

There is a certain area on the semantic map that is occupied by configurations that we can subsume under the label ATTACHED. It includes various types of attachment: fixed attachment (e.g. TRPS #24, #61), sticky attachment, glue, and adhesion (#12, #35; #3; #48, #52, #7), tight fit (#21, #10), easy detachable point-to-point attachment (#27, #41), and loose hanging attachment (#44, #9), and a more fixed type of point-to-point & hanging attachment (#33, #37, #63, #57). The assignment of certain scenes to different types of attachment is often in the eye of the beholder. And indeed languages display a whole variety of crosscuts through this sub-space of ATTACHED relations. Looking at it from a somewhat simplified perspective, however, enables us to acknowledge that not a few languages treat at least parts of this area special (compare also Bowerman & Choi 2001: §2.2). So, obviously, does Egyptian, using *r* for ATTACHED. Cf. the following examples for physically different types of attachment.


Adhesive material on a surface ('Sticky/clingy' attachment):

(Ex-1) TRPS #12 (equivalent)

  
*hs*                      *ff-(w)*    *wnn(i)*                      *r=*                      *jnb*  
 excrement(M)[SG] fly(M)-PL be\_present:PTCP.DISTR[M.SG] ATTACHED= wall(M)[SG]  
 'and excrement of flies(/\*bugs?) that sticks **on (r)** the wall'

Medical papyrus (pEbers 93,3–4); 16th cent. BCE  
 Grapow (1958: 501); DZA 21.714.180 (cf. DZA 21.714.330)


(Ex-2) TRPS #48 (equivalent)

  
*wnn*                      *snf=sn*                      *r=*                      *h3-ut=sn*  
 be\_present:NMLZ.IPFV blood(M)[SG]=3PL ATTACHED= corps-F:PL=3PL  
 'Their blood is **on**(/all over) (**r**) their corpses.'

Book of Caverns, 4th cavern; Merenptah  
 Frankfort (1933: pl. XXXV); Piankoff (1946: pl. XLIX,7)

Loosely bound around – like a wide collar or neckpiece:

(Ex-3) TRPS #46 and #51 (equivalent)

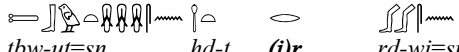
  
*w3h-(w)=sn*                      *jr*                      *dp=sn*                      *w3h-(w)=sn*                      *jr*                      *hh=sn*  
 wreath(M)-PL=3PL ATTACHED head(M)[SG]=3PL wreath(M)-PL=3PL ATTACHED neck(M)[SG]=3PL  
 'while they have wreathes **on/around (r)** their head and **on/around (r)** their neck'

Pyramid texts, spell 519; Pepi I  
 Pyr. 1213d-c<sup>P.(M),(N)</sup>; DZA 20.553.290

(cf. also one more example below)

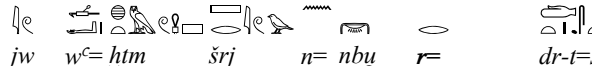
## Tightly enclosing the ground object ('Tight fit' attachment):

## (Ex-4) TRPS #21 (equivalent)

  
*tbw-ut=sn*      *hd-t*      **(j)r**      *rd-wj=sn*  
 sole-F:PL=3PL      bright-F ATTACHED leg\_plus\_foot(M)-DU=3PL  
 'their white sandals being **on (r)** their feet'


Pyramid texts, spell 518; Pepi I  
*Pyr.* 1197cP,M,(N)

## (Ex-5) TRPS #10 (equivalent)

  
*jw*      *w<sup>c</sup>= htm*      *šrj*      *n= nbu*      **r=**      *dr-t=s*  
 SBRD a= seal(M)      small[M] of= gold(M) ATTACHED= hand-F=3SG.F  
 'wearing a small golden signet ring **on (r)** her hand'

The Contendings of Horus and Seth (pChester Beatty I, rt., 5.8); Ramesses V  
 Gardiner (1932: 43); *DZA* 28.152.870

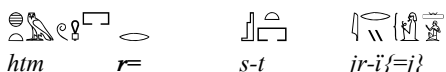
## (Ex-6) TRPS #42 and #51 (equivalent)

  
*jr-(i)t*      *u-wi*      *jr-(i)t dr-ti*      *jr-(i)t rd-wi*  
 ATTACHED-ADJZ:F arm\_plus\_hand(M)-DU      hand-F:DU      leg\_plus\_foot(M)-DU  
 'wristband (≡ that which is **on/around (r)** the arms)'  
 'wristband (≡ that which is **on/around (r)** the hands)'  
 'anklet (≡ that which is **on/around (r)** the feet)'

*Wb.* I, 104.11–14

## Permanently fixed to ('fixed' attachment):

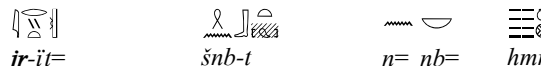
## (Ex-7) TRPS #35 (equivalent)

  
*htm*      **r=**      *s-t*      *jr-i{j}*  
 seal(M)      ATTACHED= place-F[SG] relating\_to-ADJZ  
 'The seal is **on (r)** its respective place'

The Teaching of Amenemhet §15d (as in pSallier II, 3,6); Sety II  
 Adrom (2006: 85)

## Hanging like a picture making contact with the wall while actually being appended from a nail ('Hanging on/against' attachment):

## (Ex-8) TRPS #9/44 (near equivalent)

  
*jr-i{t=}*      *šnb-t*      *n= nb=*      *hmnw*  
 ATTACHED-ADJZ:F= frontal\_chest-F[SG] of= lord(M)= TOPONYM

'the pectoral (≡ that which is **on (r)** the chest) of the Lord of Hermopolis'

Tomb of Ramose (TT166), Thebes, Dra Abu el-Naga; Haremhab–Sethos I  
 Phiel (1886.I: pl. IC); Von Bergmann (1879: pl. LXXXIII,3); *DZA* 20.984.460 (*Wb.* I, 104.15)

Hanging, one side/edge of the figure having been attached to the ground ('Bound at/ fixed at' attachment):

(Ex-9) TRPS #51 and #9/44 (near equivalent)

			...
<i>hkr-yt</i>	<i>r=</i>	<i>b<sup>c</sup>n-t=f</i>	
ornament-COLL.F	ATTACHED=	neck-F[SG]=3SG.M	
<i>hq<sup>3</sup></i>	<i>m=</i>	<i>u=f</i>	<i>jmn-t(-j)</i>
rulers_scepter(M)[SG] IN=		arm(M)[SG]=3SG.M	west-F[SG]-ADJZ[M.SG]
<i>db(3)=bjt(i)</i>	<i>r=</i>	<i>ph(w)=f</i>	
kilt(M)[SG]=royal	ATTACHED=	the_behind(M)[SG]=3SG.M	
			DZA 22.840.280

(accompanying pictures of certain objects)

'an ornament (for) on his neck; ...;

a scepter (for) in his right hand; ...;

a royal kilt (for) **on (r)** his back'.

Coffin decoration, coffin of Neferi, Cairo CG 28088; (probably first half of) 2nd mill. BCE  
Lacau (1906: 17–18); DZA 22.840.280 (*Wb.* I, 447.8)

And probably also written 'marks on a surface'<sup>8</sup> (but other interpretations are possible here):

(Ex-10) TRPS #28/68 (equivalent)

<i>iw=w</i>	<i>gm(t)</i>	<i>1000 n=</i>	<i>dbn</i>	<i>n=</i>	<i>h<sub>d</sub></i>	<i>nti=nb</i>
CORD=3PL	find:INF	1000	part_of=	deben of=	silver(M)	REL=each
<i>r=</i>	<i>t<sub>y</sub>=f</i>	<i>Hr(t)</i>				
ATTACHED=	POSS.F.SG=3SG.M	scroll(F)				

'And they found all kind of things, 1000 deben of silver worth,  
(mentioned) **in (r)** his documents'

The Misfortunes of Wenamun (pMoskau 120, rt., 2,9), approx. 21st–23rd dyn.  
Gardiner (1932: 68)

(Ex-11) TRPS #28/68 (equivalent)

							...
<i>jr~r=f</i>	<i>jr-w</i>	<i>pn</i>	<i>nti</i>	<i>r=</i>	<i>md<sup>3</sup>-t</i>	<i>tn</i>	
do~IPFV	NMLZ=3SG.M	do-COLL.M	DEM:M.SG	REL[M.SG]	ATTACHED=	document-F[SG]	DEM:F.SG

'When he performs the ritual that is (described) **in (r)** this book, [...]'

Book of the Heavenly Cow, Tomb of Sethos I; Sethos I  
Hornung (1982: 25)

8 Cf. Brala 2007: fig. 3, with reference to an unpublished paper of M. Bowerman & E. Pederson ('Cross-linguistic perspectives on topological spatial relationships', 1992).

The following table summarizes the treatment of ATTACHED configurations in Egyptian and various modern target languages:

Sub-space	A (VERT ON)	B (ATTACHED)	C (IN)
Covered by			
Egyptian	<i>hr</i>	<i>r</i>	<i>m</i>
German	<i>auf</i>	<i>an</i>	<i>in</i>
Tun. Arabic	<i>fūq</i> ; <i>ʿalā</i>	<i>ʿalā</i> ; <i>fī</i>	<i>fī</i>
Italian	<i>su</i>	<i>su</i> ; (vb. +) <i>a</i>	<i>in</i>
French	<i>sur</i>	<i>sur</i> ; (vb. +) <i>à</i>	<i>dans</i>
Spanish	<i>en</i> ; <i>sobre</i>	<i>en</i> ; (vb. +) <i>a</i>	<i>en</i> ; <i>dentro de</i>
Akkadian	<i>ina</i> ; <i>eli</i> ; ( <i>ina</i> ) <i>muḫḫi</i> ; ( <i>ina</i> ) <i>ṣerī</i>	<i>Ina</i>	<i>ina</i> ; ( <i>ina</i> ) <i>libbi</i>
English	<i>on</i>	<i>on</i>	<i>in</i>
Russian	<i>na</i>	<i>na</i>	<i>v</i>
Hebrew	<i>ʿal</i>	<i>ʿal</i>	<i>bə</i>

Tab. 2. The treatment of VERT\_ON, ATTACHED, and IN configurations in various languages

English, Russian, and Hebrew generally cover the sub-spaces VERT\_ON and ATTACHED with one and the same preposition. French, Italian, and Tunisian Arabic also have prepositions that cover both of these sub-spaces. With *à/a*, French<sup>9</sup> and Italian do, however, also have prepositions that (within the realm of static relations) are only used for ATTACHED relations but not for VERT\_ON. And Tunisian Arabic is exceptional in that *fī* encompasses ATTACHED plus IN (— in opposition to *fūq* SUPERIOR). Doing so, it also marks a boundary between VERT\_ON and ATTACHED. Spanish and Akkadian both use a General Spatial Term (Feist 2008); and it is this GST that is either preferred or the only choice for ATTACHED relations (*en* LOC, *ina* LOC). Looking at the data, there cannot be a doubt that ATTACHED is a cognitive sub-space of its own.

The table above also explains why it was a comparatively easy task for Adolf Erman and Günther Roeder to single out and translate the static meaning of Egyptian *r*.<sup>10</sup> With *an*, German has a preposition destined for the semantic sub-space ATTACHED. Nevertheless, only half of the grammars and dictionaries in German that I browsed mention this translation equivalent.<sup>11</sup>

9 For *à* in French, cf. Vandeloise 1991: ch. 11.

10 Erman (1894: §\*308); Roeder 1904: §§49–52, 75a, 93 “an”, cf. the quote in §1 above.

11 Notably: Erman (1894: §\*308, <sup>3</sup>1911: §446 “an”, <sup>4</sup>1928: §446 “ursprünglich: *aussen an*”, <sup>2</sup>1933: §610 “an”), Junker (1906: §191 “an, bei”), Edel (1964: §760 “a[n]”), Erman & Grapow (1921: 91 “an, bei”; 1928: 387.22f “an, bei”), Grapow (1961: 507f), Hannig (1995: 453, 2006: 479 “an, bei”). Cf. also Dutch: Borghouts (1993: §29 “bij, aan”).

Native-speakers of Romance languages, on the other hand, can grasp this use of *r* even more intuitively. As in the case of Egyptian *r*, their languages use one and the same preposition for TO and ATTACHED (Italian *a*, French *à*). Already Champollion was obviously aware of a static use of *r*. In his posthumous *Grammaire*, we find a description using the means of French prepositions: “On emploie cette préposition [*r*] comme notre préposition *à* dans le sens de la préposition *dans*” (Champollion 1836: §294,3).

The conflation of TO and ATTACHED does not mean, however, that the use of *r/a/à* for static relations necessarily has a dynamic connotation<sup>12</sup>. I would like to mention some observations that support this claim:

- I have asked a couple of native-speakers of French whether the phrase *avoir des chaussures aux* [≡ *à les*] *pieds* ‘to have shoes on the feet’ (TRPS #21) evokes any connotation of dynamic action — such like a prior ‘putting on’ of the shoes. My informants did not feel any such dynamic connotation.
- One informant described TRPS #27 with *La pomme pend à la branche* ‘The apple is (hanging) on the branch’. It has not ‘been hung’, but it ‘hangs’. And actually, no one ever hung the apple on the tree, i.e. no one moved the apple TO the tree. It simply grew there.
- In the Egyptian examples 1 and 2 above, *r* combines with the verb *wnn* ‘to be present’. This specifically expresses a state, not a dynamic action.

There are obviously some cases of polysemy in the realm of prepositions. Compare, e.g., the case of *h3* (AROUND; BEHIND) in §4.5 below. And I believe that also the case of *r/a/à* is best treated as a case of polysemy (TO; ATTACHED). This is — not to be mistaken — not to claim that there is no cognitive bridge between the two meanings. Actually, the dynamic meaning TO and the static ATTACHED have a common denominator. Both may point to a place in the close proximity of the ground or directly attached to the ground (CLOSE\_TO or ATTACHED; but cf. §4.2 below). Both are very different, however, as far as the implication of a movement is concerned.

Coming back to the problem of the description of meaning in dictionaries and grammars, the table above shows that native-speakers of English, Russian, and Hebrew have the hardest time to grasp the specific meaning of *r*. Among the English dictionaries and grammars, only very few highlight the appropriate translation *on* for *r*; most others suggest the translation *at*.<sup>13</sup> The latter, however, rather hints at another meaning of *r* which is CLOSE\_TO (see §4.2 below).

#### §4.2 Close relations: AT, CLOSE\_TO, and ATTACHED

Many languages have prepositions that do not specify much about the spatial relation except that there is a spatial relation and that figure and ground are somewhat proximate (AT: e.g. English *at*, German *bei*). The notion of proximity itself is relative.

12 Discussions showed me that this assumption is somewhat widespread. Nevertheless it is rarely ever spelled out (but cf. Junge 1973: 72; Nyord 2010: 39).

13 Budge (1911: 228; 1920: 414 “at”, “near”, “by”, “upon”), Gardiner (1927, <sup>3</sup>1957: §163 “upon, at”), Faulkner (1962: 145 “at”), Černý & Groll (1978: 96 “on”), Englund (1988: 13 “at”), Depuydt (1999: §3.40 “at”), Allen (2000, <sup>2</sup>2010, ch. 8.2 “at”), Beylage (2008: 85 “at, near to”), Borghouts (2010: §29 “at, near”), Gracia Zamacona (2010b: 244 “on, at”), Zonhoven (1992: §18 “naar”).

It seems that figure and ground have their own sphere/region that is felt as being part of their proximity space (cf. Svorou 1994: 12–17, 211 “region”, Feist 2008: 1188). There is, e.g., a certain space around a house, inside of which a person is said to be AT the house. If the person successively moves away from the house, more and more informants would doubt and finally reject the claim that the person is still AT the house. The proximity space evaporates gradually. The proximity space is also dependent on functional reckonings, as well as on the perspective of the observer. From space, a person would be accepted to be AT the house, while observers who are themselves close to the house would certainly hold the opposite view.

Instead of the more general AT (*bei*), German often uses its ATTACHED preposition (*an*) for relations of close proximity. I chose to label the close proximity relation expressed by it as CLOSE\_TO<sup>14</sup>. Altogether, I apply the following labels to differentiate between different types of close relations and their use:

- LOC[ATIVE]: a General Spatial Term used for any canonical, close relations with or without contact, notably including also IN configurations (Feist 2008).
- AT: presence inside the ground’s individual proximity space (excluding IN).
- CLOSE\_TO: a close proximity without contact (excluding IN configurations).
- ATTACHED (§4.1): a close relation with contact (other than IN, VERT\_ON, or UNDER), usually with a kind of adhesion, tight fit, glue, or fixation.

The distinction between AT and CLOSE\_TO seems useful for the discussion of the case of proximity relations in Egyptian, since there are also two prepositions used for close relations: *r* and *hr*. Based on the model of German, I hypothesize that *r* equals CLOSE\_TO<sup>15</sup> and *hr* equals AT<sup>16</sup>. Cf. the following cases, which – even if not always striking – can be interpreted along these lines.



14 For *close to* in English, cf. Lindstromberg (2010: 151f “not just ‘near’ but ‘very near’”).



15 Gracia Zamacona (2010b: 226) tries to capture the respective employments of *r* with the hypothesis that *r* has the basic meaning ‘outside of an entity with interior space’ (ibid.: 226, 244 “outside”, “out of”). On the one hand, my concept of CLOSE\_TO is more profiled than his OUTSIDE\_OF; on the other hand, I do not claim that there are any restrictions on grounds as to the existence/inexistence of an interior space. In another paragraph, Gracia Zamacona introduces the notion of “limit” in connection with *r* — and *dr*, but not with *m*! (ibid.: 237f [without precise explanation], but cf. 243 “at its limit (in which case *r* is used)” [underline, D.W.]). Taking these two approaches “outside” and “at its limit” together, his view is comparable to my claim that *r* has the meaning CLOSE\_TO (besides ATTACHED and TO). Another issue that differentiates Gracia Zamacona’s and my view is that I do not take *m* and *r* as an opposing couple (“inside” vs. “outside”) besides a ‘neutral’ *hr* (cf. the following fn.). Rather, I understand *m*, *r*, *hr*, and *hr* as four prepositions in a basic opposition IN vs. ATTACHED vs. SUPERIOR vs. INFERIOR (§§4.1, 4.3); and *r* and *hr* as competing in the somewhat less profiled realm of proximity relations (CLOSE\_TO vs. AT).





16 Note that two recent, tentatively monosemic approaches describe the general meaning of *hr* as AT (Gracia Zamacona 2010a: 13f, fig. 3 “essive”, “in the region of”, 23 “absence of the opposition interiority/exteriority” “Basic notion[:] Generality (absence of mark)”; but cf. also id. 2010b: 244 “on, at”, 226 “opposition inside (*m*) / outside (*r*) [...] [...] opposition neutralised [...] usually marked by *hr*”) or as a kind of NON-IN (Stauder-Porchet 2009: 67, 161, 232; “positionnement, sans délimitation d’un espace”). I, however, prefer a polysemic analysis of *hr* with a profiled basic meaning SUPERIOR besides AT.

## Nearly touching (CLOSE\_TO):

(Ex-12) from a New Kingdom door jamb






  
*dj=k*      *wnn(=j)*      *r=*      *rwd=k*      *špsī*  
 give:SBJV=2SG.M be\_present:SBJV<sup>17</sup>=1SG ATTACHED= stairs(M)[SG]=3SG.M splendid[M.SG]




  
*m=b³h*      *cu*      *nb=*      *(n)hh*  
 IN=prefield arm(M)[SG] lord(M)[SG]=perpetuity(M)[SG]

*'May you allow me to stay **close to (r)** your noble stairs, right in front of the Lord of Perpetuity'*

Door jamb, Cairo; 19th dyn or later  
DZA 25.862.780

(Ex-13) from a Middle Kingdom stela









  
*hw-n=j*      *mnj-t*      *r=*      *³bdw*  
 beat-PFV:ANT=1SG post-F[SG] ATTACHED= TOPONYM

*'..., I drove the mooring post in **close to (r)** Abydos'*

Stela of Khentemseti (BM 574, l. 14); 12th dyn.  
Sethe (1928: 75,17); DZA 24.049.890

## In the proximity space (AT):

(Ex-14) from the Admonitions of an Egyptian Sage





  
*hms-tw*      *hr b³-ut*      *r= jt-t*      *³tp-w{t}≠f*  
 sit\_down:IPFV.NMLZ-IMPRS AT bush-F:PL TO= take-INF load-COLL.M=3SG.M

*'one sits **behind (hr AT)** bushes, (until a night-traveller comes,) in order to seize his load'*

The Admonitions of an Egyptian Sage / Ipuwer, C15 (pLeiden I 344, rt., 5,11=12); 19th dyn.  
Helck (1995: 25)

(Ex-15) from the Story of Sinuhe





  
*mjtñ*      *jm*      *p³u*      *wnn*      *hr km-t*  
 bedouin\_chief(M)[SG] there have\_done:PTCP[M.SG] be\_present:INF AT black-F

*'and a bedouin chief there, who had long lived **near (hr AT)** Egypt, (recognized me).'*  
(but cf. Morschauser 2011)

The Tale of Sinuhe, B26, 12th dyn.  
Koch (1990: 21)

17 For the glossing of New Kingdom *wnn* as a 'subjunctive', 4cf. Werning ([2012]: §14).

(Ex-16) from Neferti







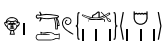


$\text{w-t=}$        $\text{h}^3\text{s-t}$        $\text{r= swj}$        $\text{hr jtrw(-w)}$        $\text{n(i)-w km-t}$   
 flock-F[SG]= desert-F[SG] TO= drink:INF    AT river(M)-PL    of-M.PL black-F

*'The desert flock is going to drink at (hr) the rivers of Egypt.'*

Neferti (pPetersburg 1116 B, 35–36); Amenophis II  
Helck (1970: 31)

(Ex-17) from the Admonitions of an Egyptian Sage






$\text{m=tn}$        $\text{šps-ut}$        $\text{hr šd-w(t)}$   
 ATTN=2PL splendid-F:PL AT dig-F.SG

*'The noble women are now at (hr) the water pit (i.e. well or ditch).'*

(for the alternative interpretation 'in \*ditches' see Enmarch 2005: 134)

The Admonitions of an Egyptian Sage / Ipuwer, C15 (pLeiden I 344, rt., 7,10); 19th dyn.  
Helck (1995: 34)

(Ex-18) from the Teaching of Ptahhotep

$\text{jw}$        $\text{gmj-t(w)=s}$        $\text{m}$        $\text{hm-ut}$        $\text{hr bnw-ut}$   
 GRND find:IPFV-PASS=3SG.F With servant-F:PL AT grinding\_stone-F:PL

*'But it can be found with the servants (working) over (hr) the grinding stones.'*

The Teaching of Ptahhotep (pPrisse, 5,10), 12th dyn.  
Žába (1956: 21)

Remark: In the latter three examples the figure is probably leaning OVER the ground, i.e. parts of the body are actually ABOVE the ground, a meaning also covered by *hr* (see §4.3 below)?

As it is with the meaning of ATTACHED, also the meaning of CLOSE\_TO seems to be grouped differently in different languages. Some languages group ATTACHED and CLOSE\_TO (German, English); some display a connection between CLOSE\_TO and TO (English). French and Egyptian seem to use one and the same preposition for all the three meanings ATTACHED, CLOSE\_TO, and TO. Cf. the following tentative table:

	ATTACHED	CLOSE_TO and/or AT	TO
German	<i>an</i>	<i>an, (nahe an)</i>	<i>zu</i>
		<i>bei, (nahe bei)</i>	
English	<i>on</i>	<i>(close to)</i>	<i>to</i>
	<i>at</i>	<i>at; by, (close by)</i>	
French	<i>à</i>	<i>à; (auprès de)</i>	<i>à</i>
	<i>sur</i>	<i>sur</i>	
Egyptian	<i>r</i>	<i>r, (r=h3w);</i>	<i>r</i>
		<i>hr; hr; (m=h3w)</i>	

Tab. 3. The cases of CLOSE\_TO and AT in different languages<sup>18</sup>

18 For English *at* and *by*, cf. Kokorniak (2007: ch. 2.3, 4.4); Lindstromberg (<sup>2</sup>2110: 175f, 144f).



## §4.3 SUPERIOR: VERT\_ON vs. ABOVE

In the case of the prepositions *hr*, *hr dp*, and *hr*, Egyptian does not differentiate between vertical alignment with contact or without contact, i.e. there is no split between the areas of VERT\_ON and ABOVE, nor between UNDER and BELOW. (For the general topic, see Skopeteas 2007.)

There is hardly any doubt that *hr* covers the meaning VERT\_ON (*Wb.* III, 131.3–19) and that *hr* covers the meaning UNDER (cf. *Wb.* III, 386.1–13). For the meanings ABOVE of *hr* and *hr dp*, cf. the following examples:

(Ex-19) TRPS #13 (equivalent)



*p-t*

*hr=k*

Sky-F[SG] SUPR=2SG.M

(Concerning a dead man in a coffin with a lid:)

‘a sky (i.e. an artificial sky) being **above** (*hr*) you’

The Tale of Sinuhe, B193, 12th dyn.  
Koch (1990: 62)

(Ex-20) TRPS #36 (equivalent)



*šn<sup>c</sup>*



*wn*



*hr*



*km-t*

storm\_cloud(M)[SG] be\_present:PTCP[M.SG] SUPR black-F

‘the storm clouds that were **over** (*hr*) Egypt’

Israel stela (Cairo CG 34025), l. 2–3; Merenptah  
Kitchen (1975–1990.IV: 13,10); *DZA* 30.165.100

(Ex-21) TRPS #36 (equivalent)



*jw=k*



*n-tj*



*wr-tj*



*tn-tj*



*qʹ-tj*



*hr dp*



*tʹ =nb*

GRND=2SG.M beautiful:RES-2SG big:RES-2SG dazzle:RES-2SG high:RES-2SG SUPR head land =each

‘You (i.e. the sun god) are beautiful, great, and dazzling high **above** (*hr dp*) every land.’

Great Sun Hymn, Amarna, Tomb of Eje, 2; Akhenaten  
Sandman (1938: 93)

(Ex-22) TRPS #36 (equivalent)



*jw=k*



*m=*



*jtn*



*n(i)*



*hrw*



*hr dp*




*{n}<tʹ>*

GRND=2SG.M role\_as= light\_disc(M)[SG] of[M.SG] day(M)[SG] SUPR head land(M)[SG]

‘when you are **above** (*hr dp*) {us}<the land> as the shining disk of the day.’

Great Sun Hymn, Amarna, Tomb of Eje, 11–12; Akhenaten  
Sandman (1938: 95)

## (Ex-23) TRPS #36 (equivalent)


  
 jw ntr pn hr jr=f h'w hr dp qrr-t=f

GRND god(M)[SG] DEM:M.SG great do:IPFV=3SG.M lifetime:M[SG] **SUPR head** cavern-F.SG=3SG.M

'The Great God spends some time **above (hr dp)** his cavern'

(Note that the cavern is located below the sun god's walking level.)

Book of Caverns, 3rd cavern; Merenptah  
Frankfort (1933: pl. XXXI); cf. also Piankoff (1946: pl. XXXII.3–4)

For the meaning BELOW of *hr*, cf. *Wb.* III, 386 (e.g. 386.15,16,18), and the following example:

## (Ex-24) TRPS #66 (near equivalent)


  
 wn-jn hm=f hr hms hr w'c=n šwb

CJVB-CNSV servant(M)=3SG.M AT sit\_down:INF **INFR** one=of perseas\_tree(M)

'Then His Majesty sat down **under (hr)** a perseas tree'

The Tale of the Two Brothers (pD'Orbiney, rt., 17,6); Amenmesse/Sety II  
Gardiner (1932: 27,8)

For a very similar example, see Gracia Zamacona 2010b: 239, ex. 31.

A conflation of the areas VERT\_ON and ABOVE, short: a SUPERIOR preposition, can be found in

Egyptian	<i>hr</i>	VERT_ON & ABOVE
Akkadian	( <i>ina</i> ) <i>muhhi</i>	(VERT_)ON & ABOVE
Spanish	<i>sobre</i>	VERT_ON & ABOVE.

A conflation of ABOVE and the smaller area of ON\_TOP can be found in

Egyptian	<i>hr dp</i>	ON_TOP & ABOVE
Hebrew	<i>mā-ʿal</i>	ON_TOP & ABOVE
Italian	<i>sopra</i>	ON_TOP & ABOVE
Spanish	<i>encima de</i>	ON_TOP & ABOVE.

A special case is the conflation of ABOVE with OVERLAPPING in Germanic:

English	<i>over</i> <sup>19</sup>	OVERLAPPING & ABOVE
German	<i>über</i>	OVERLAPPING & ABOVE.

Since many other languages recognize a split between superior with contact and superior without contact, a translator of Egyptian has to bear in mind that there is more than one possible translation for *hr* and *hr dp*.<sup>20</sup>

<sup>19</sup> Cf. Tyler & Evans 2003: 90–92; Van der Gucht *et al.* 2007: 743; Lindstromberg <sup>2</sup>2010: 109–114.

<sup>20</sup> Approximately 3 out of 5 Egyptian grammars and dictionaries that I browsed do not mention the meaning ABOVE of *hr* or *hr dp*. Some 15 notable exceptions concerning *hr* are: Champollion (1836: §299), Brugsch (1868: 978), Dedekind (1902: 156), Renouf (1905: 25), Erman & Grapow (1929: 131.20f), Erman (<sup>2</sup>1933: §615.1), Badawi & Kees (1958: 163), Grapow (1962: 614), Sander-Hansen (1963: §488), Hannig (1995: 546, <sup>4</sup>2006: 584), Grandet & Mathieu (<sup>2</sup>1997, <sup>3</sup>2003: §3.4),

It is interesting to note that in the logically comparable case of UNDER vs. BELOW, all languages do not usually distinguish between inferior with or without contact. Although some languages have special terms for BELOW, my informants never used them for the description of corresponding relations. Effectively therefore, all the languages have an INFERIOR preposition, i.e. they conflate UNDER & BELOW.<sup>21</sup>

#### §4.4 A proper head/top: *dp* vs. *hr dp*

Egyptian is remarkable in that it has two prepositions that etymologically incorporate lexemes with the meaning ‘head’ and which both can profile a proper head, peak or top: *dp* (head.LOC) and *hr dp* (SUPR head). (For the transliteration with *d*, see Werning 2004.)

The string *dp* might either refer to different words, a noun *dp* (head) and a preposition *dp* (head.LOC), or both are indeed identical.<sup>22</sup> One meaning variant of *dp* (head.LOC) is AHEAD in the senses of ‘as first’ (*Wb.* V, 273, 277–279) and, in the compound preposition *dp* ‘*u*’, ‘before’ (*Wb.* V, 282–285). This is based on a spatial metaphor that corresponds to a zoomorphic view, in which the head is in front (Svorou 1994: 73f). The other meaning variant of *dp* (head.LOC), which I label AT\_TOP, seems to specifically profile a proper head (‘on the head of, at the head of’), peak (‘on the peak of’) or top (‘on the top of’, ‘at the top of’). Most remarkable, however, is the fact that — especially in earlier texts — the preposition itself is used instead of a prepositional phrase with the noun(!) *dp* ‘head’ (*Wb.* V, 273.1–4), e.g.

(Ex-25) TRPS #5 (equivalent)



*wrr-t=f*

great\_one-F=3SG.M



*dp=f*

head.LOC=3SG.M

‘His Great Crown is **on** his **head** (*dp*).’

Pyramid Texts, spell 677; Pepi II  
Pyr. 2018b<sup>N</sup>, 2019b<sup>N</sup>

Another remarkable case, is the use of *dp* with ‘mouth’ or ‘lips’ as the ground that translates into ‘in/on/at the mouth/lips’ (*Wb.* V, 275.5–16). It is probably best understood as a case of the meaning AHEAD covered by this preposition. (This meaning AHEAD is not going to be treated any further in this study.)

The phrase *hr dp* (SUPR head) appears in much of the same contexts as *dp* (head.LOC), but with the exclusion of the meaning AHEAD. However, *hr dp* seems to be a little less restricted as far as the types of heads/tops/peaks is concerned. It also covers configurations that translate into simple *on*:

and for Ptolemaic: Junker (1906: §192) and Kurth (2008: §135); at least for *hr dp*: Erman (<sup>4</sup>1928: §454a), Behnk (1924: §45m), Petrovskij (1958: 255), and Edel (1964: §808).

21 For the case of English, see also Lindstromberg <sup>2</sup>2010: 157f.

22 Noun and preposition could have had different vocalization patterns and/or different stress. But cf. also Schenkel 2005: 114.

(Ex-26) TRPS #22 (equivalent)

*s-hr(t)=f**d<sub>i</sub>.w**hr dp**ht*

CAUS-fall:INF=3SG.M give:RES:3SG.M SUPR head wood(M)

'(The ordinance may be applied against him in the form of)

*felling him, being laid on (top of) (hr dp) a pole (i.e. staked), ...*

Nauri rock stela, Abydos decree, l. 77–78; 13th cent. BCE

Griffith (1927: pl. XLII, 77–78)

(Ex-27) TRPS #56m (equivalent)

*hd(t)**w<sup>3</sup>d(t)**(j)ns(i)**hr d<sup>3</sup>d<sup>3</sup>=sn*

bright(F) green(F) red\_cloth(M) SUPR head=3PL

'white, green, and red pieces of cloth (i.e. flags) are on (hr d<sup>3</sup>d<sup>3</sup>) them (i.e. masts)'

Philae temple, 1st pylon; Ptolemaios VI

DZA 29.302.450

Especially noteworthy is also the use of *hr dp* with a river as the ground (*Wb.* V, 274.9–11), e.g.

(Ex-28) TRPS #11r (equivalent)

*mn**jmw**=nb**hr dp**jtrw**jw**bn**ns(i)**=st**jmn*

NOT\_PRESENT ship(M)=each SUPR head river(M) SBRD NEG belong\_to=3PL Amun(M)

'There is not any ship on (hr dp) the Nile river that does not belong to Amun'

The Misfortunes of Wenamun (pMoskau 120, rt., 2,23), approx. 21st–23rd dyn.

Gardiner (1932: 69)

Does the 'head/top' cognitively translate into 'surface' here? Anyhow, the regularity of this collocation speaks in favor of a fixed idiomatic phrasing.

In contrast, some examples using the simple preposition *hr* with a river as the ground probably translate into 'at the riverside' rather than 'on the river' (for the meaning AT see §4.2 above).

(Ex-29)

*št 3tp**m= hrti**hr 3-(w)**hr r(m)t-(w)*

3PL load:RES:3PL IN= travel\_overland:INF SUPR donkey(M)-PL SUPR man(M)-PL

*3tp**r= h<sup>c</sup>-(w)**hr jtrw**AT river*

load:RES:3PL TO= ship(M)-PL

'They were loaded, in a caravan, on(to) donkeys and men,

(and then) loaded onto ships at the riverside (hr)' (but cf. Grandet 1994.I: 338)

pHarris I = pBM 9999, 77,13 (cf. also 57,6); Ramesses IV

Erichsen (1933: 66,1, 95,2); DZA 28.212.780

For the seemingly highly grammaticalized use of *hr dp* for ABOVE, cf. §4.3 above.

The diagram illustrates various spatial relationships across multiple languages. It consists of several overlapping regions defined by solid, dashed, and dotted lines, each containing a number or letter and a small illustration. Lines connect these regions to their corresponding linguistic equivalents.

- Egy. (*dp*)**: Region 39, illustration of two faces.
- Egy. "dp = ground"**: Region 5, illustration of a person's head.
- Fren. (*au sommet de*)**: Region 65, illustration of a mountain peak.
- Russ. (*na veršine*)**: Region 56m, illustration of a flag on a pole.
- Germ. (*auf der Spitze des*)**: Region 11r (river), illustration of a sailboat on water.
- Span. (*en la cima de*)**: Region 23, illustration of a tree stump.
- Ital. (*in cima a; sulla cima de*)**: Region 34h (house), illustration of a house.
- Hebr. (*b=psgh, l psgh*)**: Region 59, illustration of a desk.
- Engl. (*on top of*)**: Region 22, illustration of a spiral staircase.
- Ital. (*sopra*)**: Region 1, illustration of a desk.
- Span. (*encima de*)**: Region 29, illustration of a table.
- \*Span. (*por encima de*)**: Region 43, illustration of a person lying down.
- Engl. (*over*)**: Region 13, illustration of a table.
- Germ. (*über*)**: Region 36, illustration of a landscape with hills.
- Fren. (*au dessus*)**: Region 2, illustration of a hand holding a pen.
- Russ. (*nad*)**: Region 3, illustration of a hand holding a pen.
- Engl. (*above*)**: Region 4, illustration of a hand holding a pen.
- Hebr. (*m-<sup>c</sup>l*)**: Region 20, illustration of a hand holding a pen.

Roughly comparable to *dp* is only the English *on top of* as used by my informants. It does, however, not cover the meanings ‘on the head’ (TRPS #5) and AHEAD (cf. #39) of *dp*. The conjoined areas of Hebrew *bə=roš* (AT=head), *‘al roš* (ON head), and *mə-‘al* cover a large part but not all uses of Egyptian *ḥr dp*. Italian *sopra* covers the same kernel part like *ḥr dp*, but not the pictures #11r, #22, #56m. And Akkadian (*ina*) *muhḫi*, lit. ‘(LOC) head/skullcap’, covers the whole space of VERT\_ON and ABOVE, as well as some more adjacent scenes (cf. Steinert, in print). Obviously, the ideas about what a proper head/top/peak is are quite different across different languages. Surely, this has also to do with the fact that we look at different states of grammaticalization; and also with the other members present in the respective lexical-semantic field in these languages.

The following table summarizes natural translations for various INFERIOR and SUPERIOR configurations:

Egyptian Glossing	<i>ḥr</i> INFR	<i>ḥr</i> SUPR	<i>ḥr dp</i> SUPR head	<i>dp</i> head.LOC
	UNDER BELOW	VERT_ON OVERLAPPING ABOVE	ON_TOP ABOVE	AT head*) AT_TOP AHEAD*)
<b>Natural translations</b> *) here for AT TOP only				
Tun. Arabic	<i>taḥt</i>	<i>fūg; ʿalā</i>	<i>fūg; ʿalā</i>	<i>fūg</i>
Hebrew	<i>mitaḥat la</i>	<i>ʿal; məʿal</i>	<i>məʿal; ʿal; bəroš, ʿal roš; bəpisgat, ʿal pisgat</i>	<i>məʿal; ʿal; bəroš, ʿal roš; bəpisgat, ʿal pisgat</i>
English	<i>under</i>	<i>on; over; above</i>	<i>on top of; on; above; over</i>	<i>on top of; on</i>
German	<i>unter</i>	<i>auf; über</i>	<i>auf; über</i>	<i>auf</i>
Russian	<i>pod</i>	<i>na; nad; čerez</i>	<i>na; nad; na veršine</i>	<i>na; na veršine</i>
Italian	<i>sotto</i>	<i>su; sopra</i>	<i>sopra; in cima a; sulla cima de; su</i>	<i>sopra; in cima a; sulla cima de; su</i>
Spanish	<i>debajo de; bajo</i>	<i>en; sobre; arriba de; encima de; por encima de</i>	<i>sobre; encima de; en la cima de; arriba de; en</i>	<i>sobre; encima de; en la cima de; en</i>
French	<i>sous</i>	<i>sur; au-dessus de</i>	<i>sur; au-dessus de; au sommet de; en haut de; au bout de</i>	<i>sur; au sommet de; en haut de</i>

Tab. 4. Natural translations for Egyptian *ḥr*, *ḥr*, *ḥr dp*, and *dp*

#### §4.5 The conflation of BEHIND and AROUND

Egyptian is obviously exceptional in that it has a preposition, namely *ḥʔ*, that covers both the meanings BEHIND and AROUND, but with the exclusion of BESIDE (*Wb.* III, 8.12–9.23). In a cross-linguistic study based on a sample of nine unrelated languages, the pictures TRPS #64 (BEHIND) and #15 (AROUND without contact) appear far away on a computer generated distance plot (Levinson & Meira 2003: cf. fig. 10 and 15). Only TRPS #55 (AROUND with contact) appears, even if not in the same, at least in a neighboring cluster (*ibid.*: fig. 14). Despite its particularity, it is not difficult to formulate a hypothetical motivation for the cognitive closeness of BEHIND and AROUND in Egyptian. If we imagine a path from the deictic center to a location BEHIND an object and back on the other side, the path forms a line AROUND the object.

Also note that TRPS #64 (BEHIND), #6 (BESIDE), and #49 (BESIDE&IN\_FRONT) are very close on the distance plot (ibid.: fig. 15). Additionally, Tiroyó (Caribian) conflates BEHIND&BESIDE (#64, #6, #49) with AROUND-without-contact (#15) in the adposition *ekunnë* (ibid.: fig. 5). Other than in the case of Egyptian, however, this combination seems to speak in favor of a single, more general meaning like ‘at a side without contact’. That BESIDE is not covered by Egyptian *ḥ³* (but instead by *r=gs*) is therefore still remarkable.

Egyptian Glossing	<i>ḥ³</i> around	<i>ḥ³</i> behind			
		<i>m=ḥt</i> IN=following	<i>n:ḥ³</i> behind	<i>m=s³</i> IN=back	...
Meaning as covered in the TRPS	AROUND	BEHIND			
Natural translations					
Tun. Arabic	<i>ḥawl; dā'ir bi</i>	<i>warā'</i>			
Hebrew	<i>misaviv lə; məqifa 'et (+obj.)</i>	<i>mə'ahorey</i>			
English	<i>around</i>	<i>behind</i>			
German	<i>um; (um ... herum)</i>	<i>hinter</i>			
Russian	<i>vokrug</i>	<i>za</i>			
Italian	<i>intorno a; (attorno a)</i>	<i>dietro</i>			
Spanish	<i>alrededor de</i>	<i>detrás de</i>			
French	<i>autour de; entoure (+obj.)</i>	<i>derrière</i>			

Tab. 5. Natural translations for Egyptian *ḥ³*

#### §4.6 Proper functional control: INSIDE vs. IN

Some languages differentiate between two types of ‘in’, a more generally used one (IN) and a more restricted used one (INSIDE): e.g. Egyptian *m / m=ḥnw*, Hebrew *bə / bə=tokh*, Tun. Arabic *fī / fī wāst*, Italian *in / dentro*, English *in / inside*. If a language has only one such preposition it is usually a general IN preposition, e.g. German *in*, French *dans*, Russian *v*. In cases in which a single ‘in’ preposition competes with a General Spatial Term LOC, however, the preposition should be labeled as IN or INSIDE depending on its use. The semantic spaces covered by Spanish *dentro de* (vs. GST *en*) and Akkadian (*ina*) *libbi* (vs. GST *ina*) justifies labeling them both IN rather than INSIDE. Actually, with (*ina*) *qereb/qerbi*, Akkadian might indeed have a proper INSIDE preposition (cf. Steinert, in print).

To address the question of IN/INSIDE prepositions, we have to become aware that we cannot properly grasp the meaning of typical IN prepositions through the notion of containment. *A knife IN a hand* is not actually inside the fleshy part of the hand, but in a space formed by the hand —



and that even only partially (cf. Lindstromberg <sup>2</sup>2010: 75). The same holds true for the case of *a flower IN a vase* (cf. Vandeloise 1994: 170, fig. 3/4). Another famous example shows that it is also not just any space partially surrounded by the respective ground object that makes a figure being IN the object. A fly is only IN the wine glass if it is in the bowl part of the glass; but it is not IN the wine glass, if it sits at the spot

under the bowl part where the stem joins with the bowl — although bowl, stem, and foot of the glass surround this very spot as well (Vandeloise 1991: 33, fig. 1/2). Obviously, a (functional) part of the figure object must be contained in and — more importantly — be controlled by a functional space defined by the ground object. The ground is understood as effectively restricting the movement of the figure (– if this could move by itself). Part of the meaning of IN is functional control by a 3-dimensional or 2-dimensional bordered space (see Vandeloise 2003, 1994, 1991).<sup>23</sup>

The following Venn diagram displays the use of INSIDE, WITHIN, and IN\_THE\_MIDDLE prepositions in our language sample:

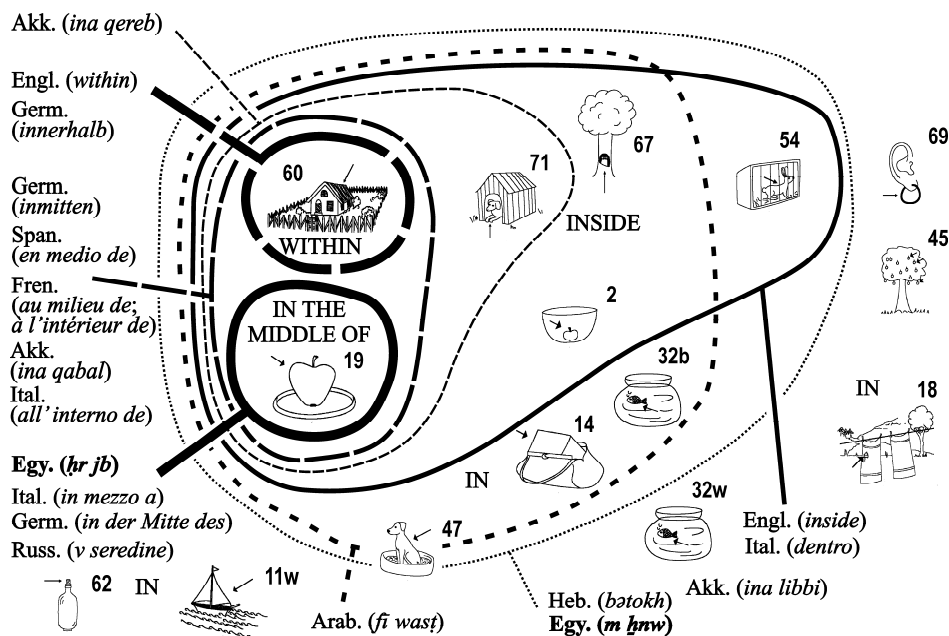
















Figure 4. Venn diagram on use of INSIDE, WITHIN and IN\_THE\_MIDDLE prepositions

<sup>23</sup> Compare the recent approaches by Stauder-Porchet (2009: 232): “*m*: délimitation d’un espace”; Nyord (2010: 29): “CONTAINMENT”; Gracia Zamacona (2010a: 23): “indicates interiority (absence of limit)”, “Basic notion[:] Unity (absence of orientation and limit)”. Actually, the notion of ‘control’ offers a nice alternative hypothesis on the relation of the meanings BY\_THE\_MEANS\_OF and IN of *m* (cf. the different approach of Nyord 2010: 32–34).



In this case, it is interesting to look at the actual numbers concerning the appearance of INSIDES in the answers of my informants in some more detail:

TRPS	Hebrew <i>batokh</i>    <i>bə</i>	Tun.Arabic <i>fī wāst</i>    <i>fī</i>	English <i>inside</i>    <i>in</i>	Italian <i>dentro</i>    <i>in</i>	Σ*)	Full cont.	Con- trol	Un- usual
#60 	–    1	3    – (3    1)	5    –	3    1 (4    1)	85% 11/13 (12/15)		4	✓ (f/g rev.)
#19 	4    –	2    1	3    5 (5    5)	3    2	60% 12/20 (14/22)		(4)	✓
#67t (trunk) 	3    – (4    –)	3    2 (4    2) (ground?)	3    2 (rest: <i>hole</i> )	1    5	53% 10/19 (12/21)	✓	5	✓
#32b (bowl) 	4    1	3    ?2	–    8 (?1    8)	–    6	29% 7/24 (8/25)	✓	5	
#54 	3    2	–    5	2    6 (3    6)	1    5	25% 6/24 (7/25)	✓	6	
#2 	3    2 (4    2)	1    4 (2    ?4)	1    6 (2    6)	1    5	26% 6/23 (9/26)	✓	5	
#71 	3    2	1    4 (3    4)	2    6 (3    7)	–    6	26% 6/23 (9/27)	(✓)	4	
#30 	3    1 (4    1)	–    5	?–    1 (rest: <i>through</i> )	1    5	25% 4/16 (5/17)		4	(✓)
#14 	5    –	1    4	–    8	–    6	25% 6/24		5	
#47 	1    4	–    4 (?1    4)	–    8	–    5	5% 1/22 (2/22)		1 (5)	(✓; for some)
#39 	–    5	–    5	–    7	–    6	0% –/23		1 (5)	
#11o (ocean) 	–    5	–    3	–    5 (–    6)	–    3 (–    4)	0% –/16		1 (5)	
#32w (water) 	–    5	–    3	–    4	–    5	0% –/17	✓	0	
#18h (hole) 	–    4	–    3 (–    ?4)	–    7	–    6	0% –/20 (–/21)	✓	0 (4)	
Σ*)	48% 29/60 (32/63)	24 % 14/59 (19/66)	18% 16/89 (22/97)	12% 10/86 (11/88)				

Tab. 6. Frequencies of answers using IN and INSIDE in different languages

\*) Percent of INSIDE answers; total: answers with either IN or INSIDE (cases of other answers excluded). Numbers in brackets are second choices.

For the understanding of INSIDE prepositions, the following observations are probably helpful:

- (1) The employment of an INSIDE preposition is usually optional.
- (2) INSIDE prepositions are optionally used for:  
     WITHIN (surrounded by a non-flat border without contact; TRPS #60),  
     IN\_THE\_MIDDLE (surrounded by a flat border without contact; TRPS #19).

Amongst the remaining cases we see that:

- (3) INSIDE prepositions are more rarely used in cases of partial containment than in cases of full containment. Nevertheless, there are two examples, in which full containment does not trigger an INSIDE preposition: *the fish* IN *the water* (TRPS #32w) and *a hole* IN *the towel* (#32w; a case of ‘negative space’). I suggest that the crucial difference is the fact that the water itself does not restrict the movement of the fish, as the ‘container’/ground does in the other cases. And although the towel does in a way geometrically/logically restrict the space in which a hole can possibly exist, it is cognitively difficult for me to conceptualize the configuration as a towel ‘controlling’ a nothing (the hole).

I therefore hypothesize that it is again not containment but control that triggers the INSIDE preposition.

- (4) Against the background of the observations above, the pictures TRPS #67, #30 and #47 have higher numbers of INSIDES than I would have had expected. The common feature seems to be that all these pictures display ‘unusual’ or ‘uncommon’ situations: *an owl* INSIDE/IN *a trunk* (not IN *a hole/cave*), *an arrow* [through] INSIDE/IN *an apple* (actually, other means of expression are often used for this) and dog AMIDST/IN a dog bed (this was alien to some Arabic and Russian informants).

These unusual pairs of figure and ground might have triggered the INSIDE preposition as some kind of emphasis.



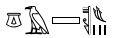





I conclude that an INSIDE preposition proper essentially denotes an emphatic expression of functional control by a 3-dimensional or 2-dimensional boundary.<sup>24</sup> Its employment is largely based on pragmatic considerations, notably subject to the Gricean Maxim of Quantity.

The case of Egyptian, however, is most difficult to account for. Firstly, as we see in the cases of the modern languages, a proper judgment is only possible with a large enough set of data concerning one and the same relation. Secondly, the uses of Demotic *hn* (EDG 381f) and Coptic ⲭⲏ (CCD 683f) tell us that *m=hnw* has eventually expanded its use to the point that its phonologically eroded successor became the IN preposition in the latest phase of Egyptian language history. Both facts together make it difficult to evaluate individual examples. To this adds the problem that *hnw* alone can also have the meaning ‘home, residence’ (*Wb.* III, 369f).

24 For the case of English, cf. also Lindstromberg <sup>2</sup>2010: 75f, 79f (“emphatic”).

Compare e.g. the following remarkable examples from the first half of the 2nd mill. BCE:

(Ex-30) TRPS #14 (near equivalent)









 ...     
*t(β)bw*      *rdj-hr=k*      *gʒš*      *m=hnw=f*  
 mug(M)[SG]    give:SBJV-OBLV=3SG.M reed(M)[SG] IN=interior(M)=3SG.M  
               
*jw*    *gs=f*      *m= rʒ*      *n(i)*    *zi*  
 GRND side(M)[SG]=3SG.M IN= mouth(M)[SG] of[M.SG] man(M)[SG]

*'a mug ... Then you need to put a straw in(to) (m=hnw IN) it (i.e. the mug), and its other end should be in (m) the patient's mouth.'*

Medical papyrus (pBerlin 3038, IV,7); approx. 1250 BCE/19th dyn.

Grapow (1958: 292); (Wreszinski 1909: 9); *DZA* 31.193.380

(Ex-31) from a Book of the Dead spell

     
*jnk*    *jwti*      *hnd=f*      *t(β)sw*      *ʒ*      *m=hnw*      *sf*  
 1SG    REL.NOT[SG.M] step\_on:INF=3SG.M commander:M[SG] great[M.SG] IN= interior(M) yesterday  
               
*jw*    *ʒu=*      *t(β)sw*      *m=hnw*      *dr-t=j*  
 GRND manuscript(M)[SG]= commander:M[SG] IN=interior(M) hand-F[SG]=1SG

*'I am the one who does not step on(?)*,

*the chief commander in the home/residence(?) (m=hnw) of(?) yesterday;*










*and the commander's certificate is tight(?) in (m=hnw IN) my hand.'*

Book of the Dead, spell 42,25 (pMesemnetjer = pLouvre E 21324); 18th dyn.

Naville (1886.II: 120)

For the earliest phases of Egyptian language history, it is probably the English and Italian INSIDES which are most comparable to *m=hnw*. The use of *bə=tokh* in Hebrew, on the other hand, probably best describes the situation half way between earlier *m=hnw* (INSIDE) and later *hn/hʔn* (IN). An early remarkable example of partial containment/control is the following:

(Ex-32) TRPS #14 or #47 (near equivalent):

  ...     
*dp-t*      *=tf*      *rd-n(=j)=wj*      *hr*    *ht*      *qʒ*  
 boat-F[SG] =DEM.DIST.F.SG    give:NMLZ-PFV.ANT=1SG=1SG SUPR wood(M)[SG] high[M.SG]  
     
*sjʒ-n=j*      *nt(i)-w*    *m=hnw=s*  
 recognize:NMLZ-PFV.ANT=1SG REL-M.PL IN=interior=3SG.F


*'(Then) this ship [came ...]. I placed myself on a high tree and immediately recognized those on (m=hnw IN \_THE\_MIDDLE?) it (i.e. the ship).'*

The Story of the Shipwrecked Sailor (pPetersburg 1115, 154–156); 12th dyn.


Blackman (1932: 46)

The following examples show that lands and oceans can be conceptualized as a bordered space in Egyptian:

(Ex-33) TRPS 19 (near equivalent):

  
 r= jr-t 3bd hr 3bd ... m= hnw n(i) jw =pn  
 TO= do-INF month(M)[SG] SUPR month IN= interior(M) of[M.SG] island(M)[SG] =DEM.M.SG  
*'to spend month and month ... on (m= hnw n(i) IN THE MIDDLE) this island'*  
 The Story of the Shipwrecked Sailor (pPetersburg 1115, 117–119); 12th dyn.  
 Blackman (1932: 44f)

(Ex-34) TRPS #19 (near equivalent) / TRPS #110:

  
 jry=j n=k qrr-(w) mnš-(w) m= hnw w3d=wj  
 do:SBIV=1SG FOR=2SG.M type\_of\_ship(M)-PL galley(M)-PL IN=interior(M) green[M]=big  
*'I will make barks and galleys for you (for being) on (m= hnw IN THE MIDDLE) the ocean'*

pHarris I = pBM 9999, 48,6; Ramesses IV  
 Erichsen (1933: 54,1–2); DZA 28.212.780

The research on language use in the modern languages of our sample clearly shows that the frequency of the use of INSIDE prepositions is not always comparable (cf. table 5 above). For the translation of *m=hnw*, this has the consequence that it is actually a simple IN preposition that most naturally renders its use in those target languages that lack an INSIDE preposition (German, Russian, French, Spanish). Literal, analytical translations of the pattern 'in the interior of'<sup>25</sup> are often alien to the actual use in the target language; and they might even fail to properly reflect the meaning of *m=hnw*.<sup>26</sup> Its meaning is probably more like an emphatic version of IN, an emphatic expression of functional control by a 3-dimensional container or a 2-dimensional boundary. But even in target languages that have an INSIDE preposition, it might in some cases be more natural to use an IN preposition in the translation (English, Italian, Tun. Arabic). The notable exception is Hebrew, in which *batokh* is actually used so often that it is a good translation also for simple *m*. And *batokh* would definitely be a natural translation for most cases covered by *m=hnw* in Egyptian.

The following table summarized natural translations for Egyptian *m*, *m=hnw*, and *hrjb*, as suggested by the input of the TRPS informants of this study:

25 Actually, most grammars and dictionaries do mention a simple IN preposition as a natural translation; exceptions e.g. Erman 1894: §315, <sup>3</sup>1911: §454; Du Bourguet 1971: 67; for Old Egyptian: Edel 1964: §800 "im Innern von". The lemma entry in the Berlin Dictionary is potentially misleading translating "im Innern von; in" in this sequence (Erman & Grapow 1929: 370; cf. also Erman <sup>4</sup>1928: §454a). Gardiner (1927, <sup>3</sup>1957: §178 "in the interior of") adds a warning "lit."; but he misses the opportunity to translate "inside" besides "in". In a recent grammar, Borghouts (2010: §30) suggests "within, inside" (besides "out of, into the inside of").

26 Note that I do not speak here about those cases in which *hnw* is a full noun with the meaning 'residence' or 'home'.







Egyptian Glossing	<i>m</i> IN			
	<i>m=hnw</i> IN=interior			
	<i>hr jb</i> SUPR heart			
Meaning as covered in the TRPS	IN	INSIDE	IN THE MIDDLE (TRPS #19)	WITHIN (TRPS #60)
<b>Natural translations</b>				
Italian	<i>in</i>	<i>in</i> ; <i>dentro</i>	<i>in</i> ; <i>dentro</i> ; <i>all' interno de</i>	<i>in</i> ; <i>dentro</i> ; <i>all' interno de</i> ; <i>(in mezzo a)</i>
English	<i>in</i>	<i>in</i> ; <i>inside</i>	<i>in</i> ; <i>inside</i> ;	<i>inside</i> ; <i>within</i> ; <i>in the middle of</i>
Tun. Arabic	<i>fī</i>	<i>fī</i> ; <i>fī wāṣṭ</i>	<i>fī</i> ; <i>fī wāṣṭ</i>	<i>(fī)</i> ; <i>fī wāṣṭ</i>
Hebrew	<i>bā</i> ; <i>bātokh</i>	<i>(bā)</i> ; <i>bātokh</i>	<i>bātokh</i>	<i>(bā)</i> ; <i>(bātokh)</i>
Spanish	<i>en</i> ; <i>dentro de</i>	<i>(en)</i> ; <i>dentro de</i>	<i>dentro de</i> ; <i>en medio de</i> ; <i>en el centro de</i>	<i>dentro de</i> ; <i>en medio de</i> ; <i>en el centro de</i>
German	<i>in</i>	<i>in</i>	<i>in</i> ; <i>in der Mitte</i>	<i>innerhalb</i> ; <i>inmitten</i>
Russian	<i>v</i>	<i>v</i>	<i>v</i> ; <i>vnutri</i> ; <i>v seredine</i>	<i>(vnutri)</i>
French	<i>dans</i>	<i>dans</i>	<i>dans</i> ; <i>à l'intérieur de</i> ; <i>au milieu de</i>	<i>dans</i> ; <i>à l'intérieur de</i> ; <i>au milieu de</i> ; <i>au centre de</i>

Tab. 7. Natural translations for Egyptian *m*, *m=hnw*, and *hr jb*

#### §4.7 Paradoxical figure–ground reversals: the case of *m dp*

One specific configuration is treated very exceptionally in Egyptian: headwear on a head or vertex. The expected way to express this configuration is of course the phrasing SUPERIOR ‘head/vertex’ (*hr dp/d3d3/wpt*), e.g.

(Ex-35) TRPS #5 (equivalent)

 *wnn*    
  *h<sup>c</sup>(w)*    
  *n(i)*    
  *r<sup>c</sup>u*    
  *hr*    
  *dp=k*

be\_present:SBIV crown(M)[SG] of[M.SG] Ra(M) SUPR head(M)[SG]=2SG.M

‘The crown of Ra shall be *on* your *head* (*hr dp*).’




Medinet Habu temple proper, anteroom of Re chapel (room 17), east wall, Thebes; Ramesses III

Medinet Habu VI, pl. 414, 16; DZA 22.334.660

We also find the use of the preposition *dp* (head.LOC) alone, without expression of ‘head’; cf. §4.4, ex. 25.

Most remarkable, however, is a phrasing that involves the preposition *m* IN, e.g.



(Ex-36) TRPS #5 (equivalent)

    
 $\dot{z}tfw$   $nti$   $\emptyset$   $m = d^3d^3 = f$   
 atef\_crown(M)[SG] REL[M.SG] [3SG.M] IN= head(M)[SG]=3SG.M

‘the Atef Crown that was **on (Egy. IN)** his head’

Book of the Dead, spell 175 (pCha = pTurin Museo Egizio 8438, BD 175, 44–45); Amenhotep III  
 Schiaparelli (1927: 62)

(Ex-37) TRPS #5 (equivalent)

   
 $\dot{z}tf(w) =$   $r^cu$   $m = wp-t=k$   
 atef\_crown(M)[SG]= Ra(M) IN= vertex-F[SG]=2SG.M

‘the Atef Crown of Ra is **on (Egy. IN)** your vertex’

Book of the Dead, spell 183 (pHunefer = pLondon BM 9901, BD 183, 32); Sety I  
 Budge (1899: pl. 2,32)

For examples with *m dp* (IN head), cf. DZA 31.004.390 ff (*Wb.* V, 264.5).

From a purely topological point of view, this is a somewhat paradoxical proposition. It is not the *crown* that is IN the *head*, as expressed by the Egyptian wording, but it is the *head* that is (partially) IN the *crown*. The *locatum* and the *relatum* seem to have switched places.

FIGURE	COP	PREP	GROUND
‘The <i>crown</i>	is	<del>VERT_ON/SUPR</del>	the <i>head</i> .’ (✓)
‘ <del>The head</del>	is	IN	<del>the hat</del> .’ (✓)
→ ‘The <i>crown</i>	is	IN	the <i>head</i> .’ (✗)

This phenomenon I call Paradoxical Figure–Ground Reversal.<sup>27</sup> It is comparatively rare but not unparalleled even in our language sample. Actually, there is a directly comparable example uttered by two of my Italian informants:

(Ex-38) TRPS #5 (Italian; 2 of 6 informants)

*Il cappello è in testa.*

the hat is IN head

‘The hat is **on (Ital. IN)** the head.’

(Note that this phrasing is also exceptional in that *testa* comes without an article.)



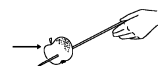
27 See the more detailed discussion in Werning (in print). Cf. also the verbal ‘Figure–ground indeterminacy’ in Japanese as described by Kita (2008: §1 with a definition on p. 93; 2006: 443). For the asymmetry of ‘figure’ and ‘ground’, see Talmy (2000.I: ch. 5.2).

Other examples from various different informants in our text sample are:

(Ex-39) TRPS #70 (French; 1 of 5 informants):

*La pomme est **dans** la tige.*

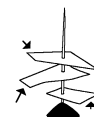
*'The apple is **on** (Fr. IN) the stick.'*



(Ex-40) TRPS #22 (French; 1 of 5)

*Les bouts de papier sont plantés **dans** la tige.*

*'The pieces of paper are planted **on(to)** (Fr. IN) the stick.'*



(Ex-41) TRPS #22 (Italian; 1 of 6)

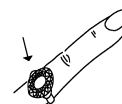
*I fogli sono infilati **nello** spillone.*

*'The sheets have been stuck **on(to)** (Ital. IN) the pin.'*

(Ex-42) TRPS #10 (Italian; 1 of 6)

*L' anello è infilato **nel** dito.*

*'The ring has been stuck **on(to)** (Ital. IN) the finger.'*



Another example seems to be mainly attested in the Walloon region (as well as in Quebec).<sup>28</sup>

(Ex-43) TRPS #21 (equivalent)

*avoir des chaussures **dans** ses pieds*

*'to have shoes **on** (Fr. IN) his/her feet'.*



The common denominator of all these paradoxical figure–ground reversals are:

- The figure encircles or caps the ground; therefore the ground(!) is partially IN the figure(!).
- The figure is controlled by the ground, which is often a body part.

I believe that it is the cognitive salience of a containment plus the salience of function/control that are present in these configurations, which trigger the choice of the IN preposition (cf. §4.6 above) — accompanied by a cognitive flip of *locatum* and *relatum*. In the translation of cases of such paradoxical figure–ground reversals, we must usually pick another preposition than IN — often a VERT\_ON or ATTACHED preposition (or their corresponding dynamic versions, see §5.2 below).

28 “[M]ets quelque chose dans tes pieds” (Vandeloise 1991: 44, ex. 1); “Avoir des chaussures dans ses pieds (wallonisme)” (<http://heltraduc.wordpress.com/2009/03/29/cours-du-30-mars-sur-les-belgicisms/>; Dec. 21st, 2010); “En tout temps, l’élève doit avoir des chaussures dans ses pieds.” (<http://www.csdrapeurs.qc.ca/delamontee/reglements.htm>; Dec. 21st, 2010).

## §5 The range of the static meanings of *m*, *r*, and *hr*

In §4.1, we have pinpointed the static meaning of *r* as being ATTACHED.<sup>29</sup> In unfortunate concord with the fact that approximately one of three Egyptian grammars and dictionaries do not mention the static meaning, it has largely been neglected or ignored in past research on prepositions.<sup>30</sup> I argued above that this is understandable to a certain degree. In some cases, the prepositional structure of the researchers respective first languages is a serious obstacle for the understanding of the static meaning of *r*. After its ‘exhumation’ through this article, however, semantic research on the prepositional system of Egyptian should account for the static meaning ATTACHED of *r* in the future. I figure that it may have a substantial impact on the analysis of the employment of not only *r*, but also *m* and *hr*, in compound prepositions, in dynamic contexts (‘movement’), as well as on the metaphorical extension into time and other semantic domains. I am going to outline this possible impact in the following sections.

### §5.1 Static *r* in compound prepositions and nisbe phrases

Firstly, an extension of the static meaning ATTACHED to cases of nearly touching close proximity (CLOSE\_TO; §4.2) allows for an explanation of certain remarkable uses. As already hinted at in the Berlin Dictionary (*Wb.* II, 387.J), one of these is its use in some ‘compound prepositions’ with static meaning like

<b>Lemma</b>	<b>Gloss</b>	<b>Berlin Dictionary</b>	<b>Translations<sup>31</sup></b>
<i>r=hʔt</i>	CLOSE_TO=front_part	<i>Wb.</i> III, 23.4–11	<i>vor (sich befinden), an der(DAT) Spitze von</i>
<i>r=sʕ</i>	CLOSE_TO=back	<i>Wb.</i> IV, 11.7 (since M.K.)	<i>hinter</i>
<i>r=gs</i>	CLOSE_TO=side	<i>Wb.</i> V, 194.11–21, cf. also	<i>(sich befinden) neben,</i>
<i>r=gswi</i>	CLOSE_TO=side:M.DU	195.2ff; <i>Wb.</i> V, 194.3–5	<i>(sich befinden) bei; an</i>
<i>r=c(w)</i>	CLOSE_TO=arm	<i>Wb.</i> I, 156.16,19	<i>neben</i>
<i>r=rnm(i)</i>	CLOSE_TO=shoulder	<i>Wb.</i> II, 418.15	<i>neben</i>
<i>r=rnm(i)w(i)</i>	CLOSE_TO=shoulder:M.DU		
<i>r=rʕ</i>	CLOSE_TO=mouth	<i>Wb.</i> II, 391.12	<i>an (dem(DAT) Eingang)</i>
<i>r=rwt(i)</i>	CLOSE_TO=gate:F.DU	<i>Wb.</i> II, 405.7–8,12	<i>außerhalb von,</i>
<i>r=rwt</i>	CLOSE_TO=outside		<i>außen vor; draußen</i>
<i>r=hʕw</i>	CLOSE_TO=vicinity	<i>Wb.</i> II, 477.9–10 (since N.K.)	<i>in der(DAT) Nähe von</i>
<i>r=hʕ(i)</i>	CLOSE_TO=back_side	<i>Wb.</i> III, 10.3 (rarely & L.P.)	<i>hinter</i>
<i>r=hnt(i)</i>	CLOSE_TO=front_side	<i>Wb.</i> III, 303.1 (L.P. & Gr.)	<i>vorn vor,</i>
			<i>an der(DAT) Spitze von</i>
<i>r=dp</i>	CLOSE_TO=head	<i>Wb.</i> V, 271.15–17	<i>auf (+DAT);</i>
		<i>Wb.</i> V, 271.19 (occasionally L.P.)	<i>an der(DAT) Spitze</i>

29 Note that the crucial difference between this approach and the analysis of Nyord (2010) is that I identify both TO and ATTACHED as ‘primary’/basic meanings of *r*, while he identifies “‘at’ or ‘attached to’” as a secondary meaning in dynamic contexts, an “end-point focus” on a telic path (Nyord 2010: 39 and fig. 2).

30 See §4.1 above; and cf. Stauder-Porchet (2009: 232f), Gracia Zamacona (2010a: fig. 1–3).

31 Note that, in German, the DATIVE case after prepositions usually signals a static meaning; as opposed to the ACCUSATIVE, which signals a dynamic meaning.



Also the largely lexicalized nisbe *jri* can most naturally be understood as ‘one close to s.o./s.th.’ in many cases, as pointed out by Roeder (1904: 40, 49f). The *jri* ‘doorkeeper’ is probably rather ‘the one close to the door’ than ‘the one directed to the door’. For *jri*, the Berlin dictionary gives two main translations, “zugehörig zu” and “befindlich an” (*Wb.* I, 103.18, 105.5), which translates into English ‘belonging to’<sup>32</sup> and ‘being situated on/at’, approximately. But actually, the meaning ‘belonging (to)’ does not seem to be a usual meaning conveyed by *r*. For this Egyptian normally uses *n* (FOR). Also the simple *jri* ‘companion’ (*Wb.* I, 105.5f) is probably rather ‘the one close to (someone)’ than ‘the one directed to (someone)’. Besides ‘belonging to’, also other suggestive mental bridges that contain a TO preposition in individual translation languages do not seem to adequately match the Egyptian case. The translation “relating to” for *jri* (e.g. Faulkner 1962: 25) is probably meant to refer to the use of *jr* to introduce a TOPIC (Roeder 1904: §§31f). One could also think of the use of *r* to introduce a PURPOSE (Nyord 2010: 41f). Is therefore a doorkeeper the ‘one whose mentally or intentionally directed focus is the door’ (rather than ‘the one close to the door’)? While this interpretation makes some kind of sense, the ‘companion’ is rather not ‘the one whose topic/purpose is another person’. Both cases are most naturally understood assuming a meaning CLOSE\_TO for *r* as an extension of ATTACHED proper, as argued in §4.2 above.

Also some static temporal uses of *r* (*Wb.* II, 387.25), like in *r tr* ‘at the time’, are more plausibly understood as direct metaphorical extensions from a static spatial meaning ATTACHED/CLOSE\_TO — rather than from a dynamic spatial meaning TO.<sup>33</sup>

## §5.2 Static *m*, *r*, and *hr* in dynamic contexts

Some languages seem to have a good amount of prepositions that specifically denote dynamic spatial relations, i.e. a path of some sort. Good examples are English *to*, *from*, *into*, *out of*, *onto*, and *through*, as well as German *zu* ‘to’, *von* ‘from’, *aus* ‘out of’, *ab* ‘off from’, and *durch* ‘through’. Egyptian, however, does not seem have many such prepositions. Good candidates in Egyptian seem to be *r* ‘to’, *m* ‘out of; from’, and *hr* ‘through, pervading’. All three prepositions, however, do have static meanings as well: *r* ATTACHED, CLOSE\_TO; *m* IN; *hr* ‘throughout’ (Faulkner 1962: 198). Indeed, in many cases Egyptian uses the same preposition in static and dynamic contexts as nicely summarized by Günther Roeder:

	<i>Static</i>		<i>Dynamic, to goal</i>		<i>Dynamic, from goal</i>	
„[ <i>r</i> ]“	<b>an</b> etwas <b>befindlich</b>	—	<b>an</b> etwas <b>heran</b>	—	<b>von</b> etwas <b>weg</b>	[...]
[ <i>m</i> ]“	<b>in</b> etwas <b>befindlich</b>	—	<b>in</b> etwas <b>hinein</b>	—	<b>aus</b> etwas <b>heraus</b>	
[ <i>hr</i> ]“	<b>auf</b> etwas <b>befindlich</b>	—	<b>auf</b> etwas <b>hinauf</b>	—	<b>von</b> etwas <b>weg</b>	
[ <i>hr</i> ]“	<b>unter</b> etwas <b>befindlich</b>	—	<b>unter</b> etwas <b>hinunter</b>	“		

(Roeder 1904: 50 [bold face: D.W.])

It is useful to carefully distinguish the meaning of the preposition from its translation ‘equivalents’ in target languages. Admittedly, at first glance, *out of* and *aus* seem to

32 Cf. e.g. Borghouts (1993, 2010: §27.b.1) “behorend bij”; “belonging to”, “rather belongingness”.

33 Compare the opposite view of Nyord 2010: fig. 2, nos. 41/42 (p. 39) and 57 (p. 41).

be natural translation equivalents in English and German if one compares the original with the translation word for word. But ‘out of’ is not necessarily the meaning of the preposition as such. And it was Rainer Hannig and some colleagues of his who explicitly argued in a short article from 1986 that the preposition *m* does not actually have the dynamic meaning “from, out of” but only the static meaning “in” (Hannig, Huang & Ling Hu 1986).<sup>34</sup> Recent studies on English and Russian explore this line of thought as well (Nikitina 2008, 2010 and Beavers, Levin & Tham 2009: §5). And indeed, other analyses are possible also in Ancient Egyptian.

To properly grasp the difference in meaning structure between the Egyptian and the English sentence, it is useful, I believe, to decompose the meaning of dynamic prepositions, as well as the meaning of verbs.<sup>35</sup> The path meaning can include at least the following information: directed/undirected movement (e.g. pure PATH vs. TO), goal/source oriented movement (e.g. TO vs. FROM), configuration at the beginning/middle/end of the movement (e.g. ‘out of’, ‘through’, ‘into’). Compare the following decomposition of dynamic prepositions of English and German:

English	German	Description	Analytic gloss
<i>to</i>	<i>zu</i>	path directed to goal	TO
<i>into</i>	—	path directed to goal; goal configuration = IN	TO.IN
<i>onto</i>	—	path directed to goal; goal configuration = ON	TO.ON
<i>from</i>	<i>von</i>	path directed away from source	FROM
<i>out of</i>	<i>aus</i>	path directed away from source; source configuration = IN	FROM.IN
<i>through</i>	<i>durch</i>	path from border, via interior, to border: i.e. source/goal configuration = ATTACHED/CLOSE_TO; path configuration = IN.	FROM.ATT .VIA.IN.TO.ATT

Tab. 8. Decomposition of dynamic prepositions of English and German

With this clarification at hand, we can now properly account for the differences between Egyptian and English.

(Ex-44) from the Tale of the Two Brothers




  
*juw=f*      *hr pr(t)*      *m pr=nsu*

CORD=3SG.M AT come.FROM.IN:INF IN= mansion(M)[SG]=king(M)[SG]



‘Then he went **out of** (*m* [FROM.]**IN**) the palace’ (on his chariot)

Tale of the Two Brothers (pD’Orbiney, rt., 17,5); Amenmesse/Sety II  
Gardiner (1932: 27,6)

34 Along the same lines Gracia Zamacona (2010b: 226, 244). Nyord (2010: 35) accepts Hannig *et al.*’s line of thought for the case of *m*/‘in(to)’, but not for *m*/‘out of’ (ibid.: 31). Hannig *et al.*’s explanation, however, is not wholly satisfying. They propose that the prepositional phrase does not refer to the same element in the source language and the target language. In the English sentence, *I drink beer out of the glass*, the phrase *out of the glass* would refer to *I*; but in the made-up Egyptian equivalent \**swr=j hnq.t m ds*, the phrase *m ds* ‘*in* bowl’ would refer to *hnq.t* ‘beer’. (Cf. also the criticism of Nyord 2010: 31, fn. 25.) The examples below, however, show that it is possible to interpret the prepositions as conveying static meaning also in dynamic contexts without two different nouns. The explanation based on the semantic relations is therefore barely adequate.

35 This is also practiced by Gracia Zamacona 2010b: cf. 224, tab. 1; 225, ex. 1 (*prj* “go-out”), 230, ex. 12 (“*q* “go-in”).

(Ex-45) from the Book of the Dead, spell 180

     
*m=tn      =wj    q=j                      m=dw3-t*

ATTN-2PL =1SG go.TO.IN:IPFV=1SG IN= netherworld-F[SG]

'I can enter (*into*) (*m* [TO.]IN) the netherworld.'

Book of the Dead, spell 180 (pParis Louvre 3073); 15th cent. BCE

Naville (1886.I: CCIV, 18)

(Ex-46) from the Pyramid Texts, spell 370

   
*nj    wpj-n=f                      jr=k*

NEG separate-PFV.ANT=3SG.M<sup>36</sup> ATTACHED=2SG.M

'He can/will not separate *from* (*r* [FROM.]ATTACHED) you.'

Pyramid texts, spell 370; Teti  
 Pyr. 646a<sup>T(P,M,N)</sup>

We see that the basic difference is the fact that English conveys path information in the preposition, which Egyptian does not do. In the Egyptian examples, the path information seem to be only conveyed by the verb. The prepositions keep their static meaning.

However, it seems clear to me that we cannot completely do away with both FROM.IN 'out of' and FROM as a meaning of *m* at the same time. Firstly, there are some motion and caused-motion verbs that together with *m* translate into verb + FROM.IN or verb + FROM, e.g. *jjj m* 'to come from (in?)' and *jnj m* 'to bring from (in?)'.<sup>37</sup> If we declared the meaning component FROM to be an integral part of the verbal meaning proper, we would not need to appoint this meaning component FROM to the prepositions. But do *jjj* and *jnj* mean \*'to come **from**' and \*'to bring **from**' rather than 'to come' and 'to bring'? Rather not. If we, then, accept the meaning FROM as a possible meaning or meaning part of *m*, the question remains whether we should appoint the simple meaning FROM or the more complex meaning FROM.IN 'out of' to it. Interestingly, there is another hint: the couples *m ... r*, *m ... nfryt r*, and *š3c m ... (š3c) r* with the meaning 'from ... to/until', e.g. *m j3bt jr jmnt* 'from the east to the west', *m 3bd 3 n(i) prt nfryt r 3bd 4 n(i) prt* 'from the 3rd month of *peret* until the 4th month of *peret*', *m pt jr t3* 'from heaven to earth', *m dp(w)=c-ut=f r tbw(w)* 'from his upper limbs(?) to the feet'.<sup>38</sup> Here *m* does rather not mean FROM.IN, but simply FROM. And cf. also the following example, in which a meaning FROM.IN is rather unlikely.

36 For the analysis of NEG plus Anterior, see Werning 2008.

37 GEG §162.8 (*jjj m* 'return from'); and cf. the examples in Stauder-Porchet (2009: 98f [*jjj m*], 118 [*jnj m*]). The case of *h3j m* seems to mean 'descend into' rather than 'descend from (in)', Hafemann (2002: 186f, ex. 103), Stauder-Porchet (2009: 198–200, with 'Remarque').

38 Wb. II, 1.10 (*jrr-t m= 3bd X nfryt r= 3bd Y* 'von ... bis Ende'; DZA 23.603.540–550 = pEbers 61.4f, 61.15); GEG §§179 (*š3c m*, *š3c r*). Other examples quoted: *q3j=f m= j3b-t jr jmn-t jr=c b sn-w=f ntr-(w)* (Pyr. 2126b<sup>Nt</sup>, 2126f<sup>Nt</sup>; Faulkner 1969, Suppl., p. 53); *jw t(3)z(=j) nti h3=j zp=2 m= pt jr t3 jn r-cu* (BD 50, variant: Lepsius 1842: pl. XXI, 50,1–2; cf. also Naville 1886.II: 123.2–3 [Ae]); *phtj jm=f m= dp-(w)=c-ut=f r= tbw[-(w)]* (pBrooklyn 47.218.84, x+13,3; Meeks 2006: 28).

(Ex-47) from the papyrus Anastasi V

s' *rwj*[/]/ *jm=j*

3 turn.AWAY[/]/ **FROM**=1SG

'It (i.e. the shackle?) was removed **from** (*m* **FROM**) me.'

Papyrus Anastasi V, 18.3

DZA 25.858.660 (*Wb.* II, 406.13); Gardiner (1937: 65,16–66,1)

If we now accept a basic meaning FROM besides IN for *m*, it becomes obvious why *m* appears in contexts with the meaning FROM.IN 'out of' as well. It is the natural choice, since both basic meanings of *m*, FROM and IN, are present at the same time. From a linguistic point of view, however, we do not necessarily need to declare FROM.IN to be an extra basic meaning of *m*, besides IN and FROM.

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References and remarks to tab. 9:

(Meanings in square brackets are not part of the meaning of the preposition as such.)

- \*) A General Spatial Term (LOC) can be used for all kinds of canonical, close configurations, notably including IN besides ATTACHED and VERT\_ON (Feist 2008). It is therefore not to be confused with AT (§4.2 above).
- 1) *m=hnw* [FROM.]INSIDE: *Wb.* III, 370.19, 371.2,7,11,19; [TO.]INSIDE: *Wb.* III, 370.20,22, 371.3,12,20.
- 2) *r* TO[.IN]: Stauder-Porchet (2009: ex. 266, with fn. 439).
- 3) *r=hnw* TO.INSIDE: *Wb.* III, 371.1–4.
- 4) *m* FROM: cf. the discussion above.
- 5) Cf. *GEG* §163 ("to", "towards"). *n* FOR instead of *r* TO in many cases with animate goals: Stauder-Porchet (2009: 232; but cf. ex. 280, 281), Hafemann (2002: 172, 186f, 191f, ...), Gracia Zamacona (2010b: 234).
- 6) *r* [FROM.]ATTACHED or [FROM.]CLOSE\_TO (see §§5.1–2 above): cf. *Wb.* II, 295.14f (*nhm r*), 406.12 (*rwj r*); [TO.]ATTACHED/TO[.ATTACHED]: *Wb.* III, 331.6 (*rdi r hñ=f*); Stauder-Porchet (2009: ex. 267, 269, 273).
- 7) *hr* [FROM.]SUPR: Stauder-Porchet (2009: ex. 243, cf. also 336); [TO.]SUPR: Stauder-Porchet (2009: ex. 304, 307, 310).
- 8) *hr* [TO.]SUPR: Stauder-Porchet (2009: ex. 308).
- 9) *hr* [FROM.]INFR: cf. pLouvre I 3079, 110,41f: *tb(w)tī=k hr t3 pri mw hr{t}=(w)* (Goyon 1967: 145); [TO.]INFR: *Wb.* III, 386.2,4–5.
- 10) Lindstromberg (<sup>2</sup>2010: 37f, 43); mentioning that *out of* originally meant OUT FROM.
- 11) Nikitina (2008); Lindstromberg (<sup>2</sup>2010: 31–33).
- 12) Lindstromberg (<sup>2</sup>2010: ch. 2).
- 13) Cf. Lindstromberg (<sup>2</sup>2010: 30).
- 14) Lindstromberg (<sup>2</sup>2010: 43f, 55).
- 15) Cf. Lindstromberg (<sup>2</sup>2010: 51–55).

The following table is a tentative sketch of the use of prepositions in dynamic contexts in Egyptian, German, and English:

	<i>Source/goal configuration</i>					
	Interior, control	Un- specified	Attached	Superior, contact	Superior, no contact	Inferior
Path from source	FROM .IN	<b>FROM</b>	FROM .ATTACHED	FROM .VERT_ON	FROM .ABOVE	FROM .INFR
Static	<b>IN</b>	<b>LOC<sup>*)</sup></b>	<b>ATTACHED</b>	<b>VERT_ON</b>	<b>ABOVE</b>	<b>INFR</b>
Path to goal	TO .IN	<b>TO</b>	TO .ATTACHED	TO .VERT_ON	TO .ABOVE	TO .INFR

<i>Egyptian</i>	Interior, control	Un- specified	Attached	Superior, contact	Superior, no contact	Inferior
Path from source	<i>m / m=h<sub>1</sub>n<sub>2</sub>w<sup>1)</sup></i>	<b><i>m</i><sup>4)</sup></b>	<i>r</i> <sup>6)</sup>	<i>ħr</i> <sup>7)</sup>	<i>*ħr / *ħr dp</i>	<i>*ħr</i> <sup>9)</sup>
Static	<b><i>m / m=h<sub>1</sub>n<sub>2</sub>w</i></b>		<b><i>r</i></b>	<b><i>ħr</i></b>	<i>ħr / ħr dp</i>	<b><i>ħr</i></b>
Path to goal	<i>m / m=h<sub>1</sub>n<sub>2</sub>w<sup>1)</sup> / r<sup>2)</sup> / r=h<sub>1</sub>n<sub>2</sub>w<sup>3)</sup></i>	<b><i>r</i><sup>5)</sup></b>	<i>r</i> <sup>5) 6)</sup>	<i>ħr</i> <sup>7)</sup> / <i>*r</i>	<i>ħr</i> <sup>8)</sup> / <i>*ħr dp</i>	<i>ħr</i> <sup>9)</sup>

<i>German</i>	Interior, control	Un- specified	Attached	Superior, contact	Superior, no contact	Inferior
Path from source	<b><i>aus</i></b> (... <i>heraus</i> )	<b><i>von</i></b> (... <i>weg</i> )	<i>von ... ab / von ... weg</i>	<i>von (auf) ... weg</i>	<i>von über (... weg)</i>	<i>von unter (... weg)</i>
Static	<b><i>in</i></b> (... <i>drin</i> )		<b><i>an</i></b> (... <i>dran</i> )	<b><i>auf</i></b> (... <i>drauf</i> )	<b><i>über</i></b> (... <i>drüber</i> )	<b><i>unter</i></b> (... <i>drunter</i> )
Path to goal	<i>in (... hinein/herein)</i>	<b><i>zu (... hin)</i></b> / ( <i>nach</i> )	<i>an (... heran)</i>	<i>auf (... hinauf)</i>	<i>über (... hin)</i>	<i>unter (... hinunter)</i>

<i>English</i>	Interior, control	Un- specified	Attached	Superior, contact	Superior, no contact	Inferior
Path from source	<b><i>out of</i><sup>10)</sup></b>	<b><i>from</i><sup>12)</sup></b>	<b><i>off (from)</i></b>	<i>off (from)<sup>14)</sup> / from (on)</i>	<i>from above</i>	<i>from under</i>
Static	<b><i>in / (inside)</i></b>		<b><i>on</i></b>	<i>on</i>	<b><i>above / over</i></b>	<b><i>under</i></b>
Path to goal	<i>in / into<sup>11)</sup></i>	<b><i>to</i><sup>13)</sup></b>	<i>on / onto</i>	<i>on / onto<sup>15)</sup></i>	<i>above</i>	<i>under</i>

Tab. 9. The mapping of prepositions on static and dynamic meaning

The table suggests that we can do away with the claim that *m* has a meaning ‘out of’/FROM.IN. The polysemous preposition *m* has the two spatial meanings IN and FROM; therefore it is naturally used in contexts referring to FROM.IN (‘out of’) configurations, as well. Along the same line of thought, we do not have to claim that *r* has the three spatial meanings TO, TO.ATTACHED, and ATTACHED. The two meanings TO and ATTACHED naturally account for its use in contexts referring to TO.ATTACHED configurations. In other cases in which the direction of the path and the layout of the source or goal situation is known, speakers of Egyptian did not usually pick a ‘complex’, compound preposition like *r=hnw* TO=INTERIOR. Instead they made a choice between the option to encode either the direction of the dynamic path (*m* FROM, *r* TO, or *ht* THROUGH), or to encode the static source or goal configuration, respectively (*m* IN, *r* ATTACHED/CLOSE\_TO, *hr* SUPERIOR/AT, *hr* INFERIOR, *r=gs* NEXT\_TO, various IN\_FRONT and BEHIND prepositions and other more specific ones like *m=hnw* INSIDE, *hr dp* ON\_TOP/ABOVE, *hr* AT.HIERARCHICAL\_DIFFERENCE<sup>39</sup>, ...). We would assume that the choice between the two options also depended on the amount of information on the path and the source/goal configuration inherent to the verb used. To evaluate this, however, we need more research on the verb meanings, which, I suggest, should decompose also the verb meaning, e.g. *ʕq* ‘enter’ as go.TO.IN or *prī* ‘come out’ as come.FROM.IN.<sup>40</sup> We see more clearly then what is going on in phrases like

<i>ʕq</i>	<i>r</i>	<i>hwt=ntr</i>	go.TO.IN	<u>TO</u>	mansion=god	‘entering the temple’,
<i>ʕq</i>	<i>m</i>	<i>prw</i>	go.TO.IN	<u>IN</u>	house	‘entering the house’,
<i>ʕq</i>		<i>nʔ-t</i>	go.TO.IN		city	‘entering the city’; <sup>41</sup>
and						
<i>prī</i>	<i>m</i>	<i>nʔ-t</i>	come.FROM.IN	<u>FROM</u>	city <sup>42</sup>	‘coming out of the city’,
			come.FROM.IN	<u>IN</u>	city	‘coming out of the city’,
<i>prī</i>	<i>r</i>	<i>p-t</i>	come.FROM.IN	TO	sky	‘coming (out) to the sky’. <sup>43</sup>

Interestingly, a spatial preposition seems to be able to overrule contradictory static spatial information inherent in the verb, e.g.

*prī hr wdhw-w* come.FROM.~~IN~~ SUPR offering\_tables.<sup>44</sup> ‘coming from the o. tables’

39 Cf. Junge (1973: 73 “als Indikator einer Art persönlichen ‘Aura’”); Hannig (2006: 657.23895ff).

40 Gracia Zamacona (2010b: ex. 1, 6, 12) glosses *prī* “go-out”/“go-up” and *ʕq* “go-in”. Cf. also the descriptions of Hafemann (2002: 171f, *ʕq* ‘(ein)treten; betreten’ ‘Richtungsverb’ [≡ go.TO(.IN)?, D.W.]) and Stauder-Porchet (2009: 153, *ʕq* ‘Verbe de déplacement horizontal, ingressif’ [≡ move.HORIZ.TO.IN?]; *prī* ‘Verbe de déplacement horizontal, égressif’ [≡ move.HORIZ.FROM.IN?], but cf. ibid.: 168f). The question of deixis, i.e. ‘go’ vs. ‘come’, is yet another problem.

41 Cf. Hafemann (2002: §2.2), Nyord (2010: 34f). Stauder-Porchet (2009: 153–157); note that she observed that *ʕq m* ‘never’ means ‘entrer dans’ but rather ‘entrer par’ before the New Kingdom (ibid.: 155, 161; but cf. Hafemann 2002: ex. 33). I suggest that this be taken as a pragmatic inference effect which is triggered by the type of ground involved, i.e. the conceptualization of the respective ground as an entrance space: go.TO.IN IN + entrance\_space > go.TO.IN [through.]IN entrance\_space.

42 The analysis as FROM is favored by Stauder-Porchet (2009: 162; examples: ex. 214f with *fnm*.).

43 Cf. Stauder-Porchet (2009: 168f with ex. 234).

44 Cf. Stauder-Porchet (2009: 171f with ex. 243).

One could, on the other hand, explore the hypothesis that *prj* does only mean come.FROM without .IN, or even go.AWAY. This would account for the meaning ‘to escape from weapons’ in

*prj m h3w* go.AWAY(?) FROM weapons.<sup>45</sup> ‘*escaping the weapons*’

For a more complete picture of the prepositional use of static prepositions in dynamic contexts in Egyptian, we also have to add the tricky cases of ‘proximity’ relations (§4.2). As in German and French it is the ATTACHED preposition that can be used here in Egyptian: *r* CLOSE\_TO. But there are also some hints that, besides SUPERIOR, *hr* does have another, more general spatial meaning AT (see §4.2), e.g. in

*ʕq hr jty* go.TO+IN AT sovereign.<sup>46</sup> ‘*approaching the sovereign*’

With the meaning AT, we can also easily motivate the uses in context of ‘passing by s.o./s.th.’ — again as a use of a static meaning in dynamic contexts, e.g.

*sw3i hr n-t* pass.VIA.AT AT city.<sup>47</sup> ‘*passing the city*’.

Also, the employment of *hr* in the Egyptian Periphrastic Progressive (> Periphrastic Imperfective) resembles a German progressive converb construction based on the preposition *bei* AT:<sup>48</sup>

<i>*jw=f hr zwr</i>	BS=3SG.M	AT	drink:INF	‘ <i>he is drinking</i> ’	
<i>beim trinken</i>		AT.the	drink:INF	‘ <i>drinking</i> ’.	
<i>(Er ist am trinken</i>	he	is	ATTACHED.the	drink:INF	‘ <i>he is drinking</i> ’.)

## Conclusions

The adaptation of a method of typological linguistics, i.e. the Topological Relation Picture Series experiment, has enabled us to better understand the uses and meaning of simple spatial prepositions in Egyptian. The method allows us to identify certain nuclei on the semantic map of static spatial configurations, which not all, but at least some languages of the world differentiate between. These help to form a language-independent semantic vocabulary (cf. fig. 1: ABOVE, VERT\_ON, ATTACHED, IN, ...). Spoken languages, however, very often use a single preposition for a set of such nuclei, e.g. English *on* covers VERT\_ON and ATTACHED. A comparison of eight modern languages and Egyptian helps us to better understand some mismatches and similarities between the prepositional use in Egyptian and that in modern target languages.










The results for the most basic spatial Egyptian prepositions, as well as some further considerations concerning their employment in dynamic contexts, are summarized in the table below.

45 Stauder-Porchet (2009: 165, ex. 222) = Sinuhe R160f, AOS 52 (Koch 1990: 51); but B without *m*.

46 Cf. Hafemann (2002: ex. 31) — note that she does not seem to insist that *ʕq* conveys any IN information at all —, and Stauder-Porchet (2009: 159f with ex. 210 and fn. 385).

47 E.g. *Wb.* IV, 60.8–13 (*sw3i hr*; the example is from BD 125, Aa end, *DZA* 29.040.640); *Wb.* III, 456.1–6 (*znj hr*). Cf. Junge (1973: 86): “‘berührende’ Affizierung”.

48 In contrast to English *at* + verbal noun; cf. Kokorniak (2007: ch. 3.2.4). For some more detailed typological comments on this type of periphrastic progressives, cf. Winand 2006: 311–312, fn. 48.

		<i>Static meaning</i> (compare fig. 1, above)	<i>Static meaning</i> <i>in dynamic contexts*</i>	<i>Dynamic meaning</i>
	<i>m</i>	IN	IN	FROM
	<i>m=hnw</i>	INSIDE > IN, WITHIN, IN_THE_MIDDLE	INSIDE > IN, WITHIN, IN_THE_MIDDLE	—
	<i>r</i>	ATTACHED, CLOSE_TO	ATTACHED, CLOSE_TO	TO
	<i>r=gs</i>	NEXT_TO	NEXT_TO	—
	<i>hr</i>	SUPERIOR (= VERT_ON & ABOVE); AT	SUPERIOR; AT	—
	<i>hr dp</i>	ON_TOP; ABOVE	ON_TOP; ABOVE	—
	<i>dp</i>	head.LOC; AT_TOP; AHEAD	head.LOC; AT_TOP; AHEAD	—
	<i>hr</i>	INFERIOR (= UNDER & BELOW)	INFERIOR	—
	<i>h3</i>	BEHIND; AROUND	BEHIND; AROUND	—

Tab. 10. The spatial meaning of some basic prepositions in Hieroglyphic Ancient Egyptian

\*) An additional meaning component FROM, TO, or VIA is inherent to the verb, rather than inherent to the preposition, or it has to be inferred from the context.

The clarification of the static meaning of *m* (IN, as functional control by a three-dimensional or two-dimensional border), *r* (ATTACHED, CLOSE\_TO, and TO) and *hr* (SUPERIOR and AT), as well as the hypothesis on the basic dynamic meaning of *m* (FROM; rather than FROM.IN ‘out of’), enables us to rethink the (hi)story of the metaphorical extensions of spatial meanings of these prepositions. The suggested decomposition of dynamic meanings of prepositions and verbs gives us new means to evaluate the contribution of the preposition vs. the contribution of the verb in a given sentence. This can also lead to a more fine-grained description of verbal meaning. It also enables us to identify the role of pragmatic inference in sentences with under-specified spatial information.



## Glossing abbreviations

Cf. also Di Biase-Dyson, Kammerzell & Werning 2009.

1	1st person	CORD	coordinator	NMLZ	nominalized
2	2nd person	DEM	demonstrative	OBLV	obligative
3	3rd person	DISTR	distributive	PASS	passive
ADJZ	adjectivizer	DU	Dual	PFV	perfective
ANT	anterior	F	femininum	PL	plural
ATT	attached	GRND	grounding particle	PTCP	participle
ATTN	attention marker	IMPRS	impersonal	REL	relative
BS	base	INF	infinitive	RES	resultative
CAUS	causative	INFR	inferior	SBJV	subjunctive
CJVB	conjunctive verb	IPFV	imperfective	SBRD	subordinator
CNSV	consecutive	LOC	locative	SG	singular
COLL	collective	M	masculinum	SUPR	superior

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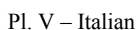


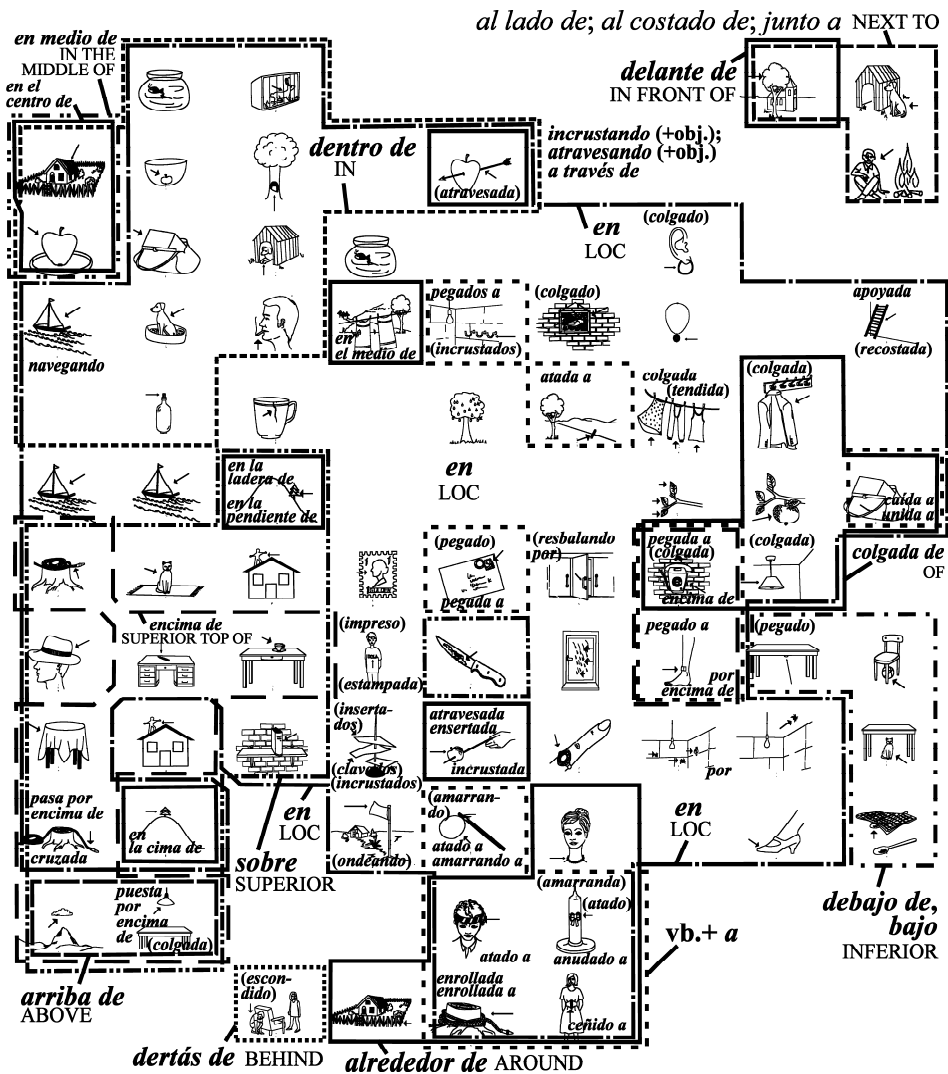






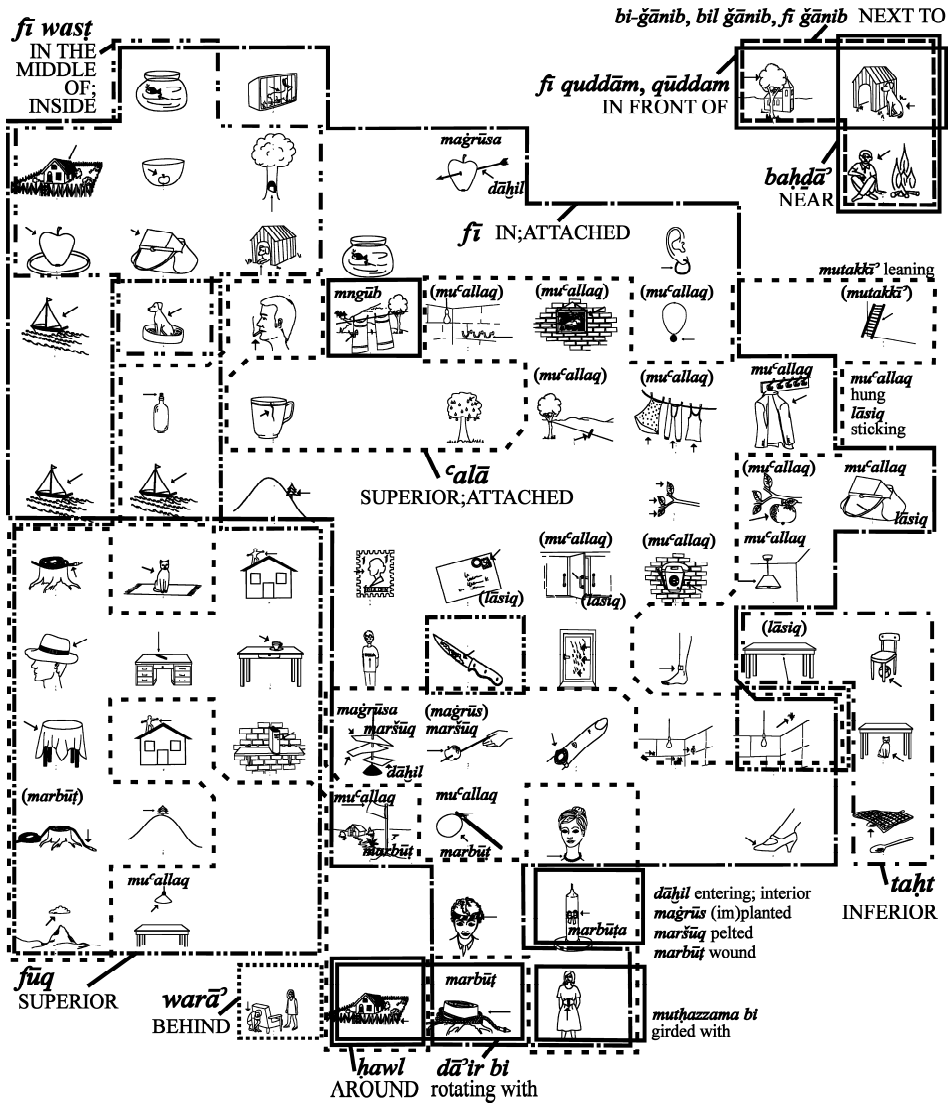






Pl. VI – Spanish





Pl. VIII – Tunisian Arabic