

Eitan Grossman, Peter Dils,  
Tonio Sebastian Richter & Wolfgang Schenkel (eds.)

Greek Influence on Egyptian-Coptic:  
Contact-Induced Change in an Ancient African Language

# Lingua Aegyptia

## Studia Monographica

Herausgegeben von  
Frank Kammerzell, Gerald Moers und Kai Widmaier

Band 17

Institut für Archäologie  
Humboldt Universität  
Berlin

Widmaier Verlag  
Hamburg

Institut für Ägyptologie  
Universität Wien  
Wien

Greek Influence on Egyptian-Coptic:  
Contact-Induced Change  
in an Ancient African Language

DDGLC Working Papers 1

edited by

Eitan Grossman, Peter Dils,  
Tonio Sebastian Richter & Wolfgang Schenkel

Widmaier Verlag · Hamburg  
2017

Titelaufnahme:  
Eitan Grossman, Peter Dils, Tonio Sebastian Richter & Wolfgang Schenkel (eds.)  
Greek Influence on Egyptian-Coptic:  
Contact-Induced Change in an Ancient African Language  
Hamburg: Widmaier Verlag, 2017  
(Lingua Aegyptia – Studia Monographica; Bd. 17)  
ISSN 0946-8641  
ISBN 978-3-943955-17-0

© Widmaier Verlag, Kai Widmaier, Hamburg 2017  
Das Werk, einschließlich aller seiner Teile, ist urheberrechtlich geschützt.  
Jede Verwertung außerhalb der engen Grenzen des Urheberrechtsgesetzes ist ohne Zustimmung  
des Verlages unzulässig und strafbar. Das gilt insbesondere für Vervielfältigungen, Übersetzungen,  
Mikroverfilmungen und die Einspeicherung und Verarbeitung in elektronischen Systemen.  
Gedruckt auf säurefreiem, archivierfähigem Papier.  
Druck und Verarbeitung: Hubert & Co., Göttingen  
Printed in Germany

[www.widmaier-verlag.de](http://www.widmaier-verlag.de)

# CONTENTS

PREFACE .....	vii–viii
---------------	----------

## 1 LINGUISTIC INTRODUCTION

Pieter Muysken	
Using Scenarios in Language Contact Studies:	
Linguistic Borrowing into Coptic .....	3–16

## 2 VIEWS ON LANGUAGE CONTACT IN ROMAN AND BYZANTINE EGYPT

Roger S. Bagnall	
Zones of Interaction between Greek and Egyptian in Roman Egypt.....	19–26

Joachim Friedrich Quack	
How the Coptic Script Came About.....	27–96

Sofia Torallas Tovar	
The Reverse Case: Egyptian Borrowing in Greek .....	97–113

Ewa D. Zakrzewska	
“A Bilingual Language Variety” or “the Language of the Pharaohs”?	
Coptic from the Perspective of Contact Linguistics.....	115–161

## 3 BORROWING FROM GREEK INTO COPTIC: ISSUES AND FINDINGS

### *Parts of Speech*

Mathew Almond	
An Introduction and Overview to Greek Adjectives in Coptic .....	165–194

Barbara Egedi	
Remarks on Loan Verb Integration into Coptic.....	195–206

Eitan Grossman & Tonio Sebastian Richter	
Dialectal Variation and Language Change:	
The Case of Greek Loan-Verb Integration Strategies in Coptic.....	207–236

Andrea Hasznos	
Syntactic Patterns Used after Verbs of Exhorting .....	237–264
Matthias Müller	
Greek Connectors in Coptic. A Contrastive Overview I .....	265–315
Elsa Oréal	
Greek Causal Discourse Markers in Coptic Letters: A Case Study in the Pragmatics of Code-Switching .....	317–333
Eitan Grossman & Stéphane Polis	
Polysemy Networks in Language Contact: The Borrowing of the Greek-Origin Preposition κατά/κατα in Coptic .....	335–367

*Borrowing and Dialectal Variety of Coptic*

Wolf-Peter Funk	
Differential Loan across the Coptic Literary Dialects.....	369–397
Nathalie Bosson	
Loanwords in Early Bohairic (B4): Problematics and Main Features .....	399–421
Anne Boud'hors	
Greek Loanwords in Fayyumic Documentary Texts.....	423–439

*Author and Genre*

Ariel Shisha-Halevy	
A Structural-Interferential View of Greek Elements in Shenoute .....	441–455
Heike Behlmer	
Differentiating Lexical Borrowing according to Semantic Fields and Text Types – A Case Study .....	457–478

4 BORROWING FROM SEMITIC LANGUAGES INTO EGYPTIAN-COPTIC

Jean Winand	
Identifying Semitic Loanwords in Late Egyptian .....	481–511
Tonio Sebastian Richter	
Borrowing into Coptic, the Other Story: Arabic Words in Coptic Texts.....	513–533

# Polysemy Networks in Language Contact

## The Borrowing of the Greek-Origin Preposition κατά/κατα in Coptic

Eitan Grossman & Stéphane Polis<sup>1</sup>

### Abstract

This paper explores a particular aspect of the semantics of adposition borrowing, focusing on the extent to which polysemy networks associated with model language adpositions are copied in the target language. We make use of the distinction between comparative concepts and descriptive categories (Haspelmath 2010) to describe the integration of loanwords in a target language, in this case Greek-origin adpositions in Coptic. Taking the Greek-origin adposition κατά (*katá*) in Coptic as a case study, we show that entire polysemy networks are not borrowed. Rather, only some sections – not necessarily contiguous on a semantic map – of polysemy networks are borrowed. We conclude that this points to the possibility that loanwords are borrowed in individual constructions.

### 1 Introduction

This paper explores a particular aspect of the semantics of adposition borrowing, focusing on the extent to which polysemy networks associated with model (or ‘donor’) language adpositions are borrowed (or ‘copied’) in the target (or ‘recipient’) language. Taking the Greek-origin adposition κατά (*katá*)<sup>2</sup> in Coptic as a case study, we show that entire polysemy networks are not borrowed. Rather, only some sections – not necessarily contiguous – of polysemy networks are borrowed.

For the purposes of this article, we assume that the meanings or senses associated with an adposition are not necessarily contextually derived from a single basic (and usually very abstract) meaning. We also assume that these meanings or senses are not organized or

- 
- 1 Jerusalem (<eitan.grossman@mail.huji.ac.il>) & Liège (F.R.S.-FNRS) (<s.polis@ulg.ac.be>). This contribution is the synthesis of three originally independent papers, namely Grossman (2010) and Polis (2010, 2013). We gratefully acknowledge the help of Baudouin Stasse (University of Liège) with the treatment of data and the statistics for this paper. Guillaume Lescuyer and Thanasis Georgakopoulos (University of Liège) provided useful comments on a draft of this paper. We also gratefully acknowledge the support of the Israel Science Foundation for the project *Adposition borrowing in cross-linguistic perspective* (grant 248/13).
  - 2 Transliteration of Coptic is according to the Leipzig-Jerusalem proposal in Grossman & Haspelmath (2015). Glosses are according to the Leipzig Glossing Rules (<https://www.eva.mpg.de/lingua/resources/glossing-rules.php>); category labels used here that are not found in the Leipzig list are: HAB – habitual, IMPF – imperfect, MOD – modifier, PTCL – particle, SBRD – subordinizer.

distributed randomly at the semantic level. Following a trend of research in lexical semantics, we consider that *polysemy* permits more interesting hypotheses about – and possibly more insightful analyses of – the one-to-many form-function mappings associated with adpositions (e.g., Koptjevskaja-Tamm 2008, Hagege 2010). The burst of work on semantic maps<sup>3</sup> has provided a useful tool for evaluating the empirical validity of polysemy, and it will be used here in a language contact situation for comparing the polysemy networks of adpositions in the source and target language.

Different scenarios are possible when describing the transfer of polysemic items from a Source to a Target language. Given an adposition  $\alpha$  that covers a connected region of five points on a semantic map in a Model language (Fig. 1, left), one can envision five scenarios:<sup>4</sup>

- (1) The whole polysemy network of the adposition  $\alpha$  is borrowed (= Full Pattern [PAT] Transfer<sup>5</sup>).
- (2) A connected region of the polysemy network is borrowed (= Partial PAT Transfer 1);
- (3) Disconnected regions of the polysemy network are borrowed (= Partial PAT Transfer 2; see Fig. 1, Case 1).
- (4) A connected region of the polysemy network is borrowed, but the meaning of the adposition  $\alpha$  in the target language also extends to a new *connected* region on the semantic map (Innovative PAT Transfer 1; cf. Fig. 1, Case 2).
- (5) A connected region of the polysemy network is borrowed, but the meaning of the adposition  $\alpha$  in the target language also extends to (a) new *disconnected* region(s) on the semantic map (Innovative PAT Transfer 2).

3 See, e.g., the special issue of *Linguistic Discovery* 8/1 (2010). In Egyptology, see Grossman & Polis (2012); Werning (2012 & 2014); Georgakopoulos et al. (2016); Winand (2016: 137–139). Limitations of the ‘classical’ semantic maps are discussed in Grossman & Polis (2012: 196–197) and re-emphasized in Stauder-Porchet (2016; especially regarding the difficulty of representing items *vs* representing meanings of items in particular constructions, cf. the discussion in Hagege 1997).

4 A sixth option, which is not considered here, is that no PAT is dragged along with MAT in the transfer; this would mean that none of the senses of the polysemic item in the source language are copied in the target language, rather only new meanings are.

5 The distinction between *matter* (MAT) and *pattern* (PAT) transfer (see below Section 2) was introduced by Matras & Sakel (2007b; see further Sakel 2007) and will be used throughout this paper.



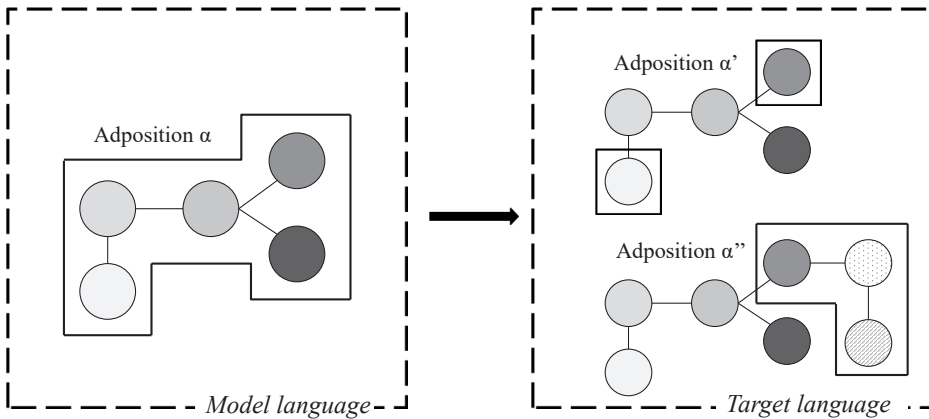


Figure 1: Two cases of PAT Transfer between a model and a target language  
(the circles represent meanings associated with the adposition  $\alpha$ ; intensity of grey represents frequency)

Some of these scenarios intuitively appear to be more likely than others. In light of the paucity of research on this question, however, the goal of this contribution is to provide an empirical corpus-based case study to address this issue. The article is structured as follows. In Section 2, we present an overview of how polysemy networks have been dealt with in language contact studies. Section 3 provides background information about the language contact situation between Greek and Coptic, and briefly describes the integration of Greek-origin adpositions in Coptic. Section 4 presents a case study on *κατα* (*kata*) in Coptic, focusing on translations of the New Testament into the Sahidic and Bohairic dialects.

## 2 Polysemy networks in language contact: status quaestionis

Polysemy networks have been intensively dealt with in analyses of *pattern* (PAT) transfer<sup>6</sup> (also known as calquing or replication), i.e., when only the organization, distribution, and mapping of grammatical and semantic meaning of the source language is replicated, while the form itself is not borrowed. However, PAT transfer has received much less attention in the language contact literature in the context of *matter* (MAT) transfer, i.e., when the morphological material (and phonological shape) of one language is replicated in another language.

### 2.1 Polysemy and PAT transfer

In the domain of PAT transfer (especially in the literature on contact-induced grammaticalization), polysemy networks are of paramount importance. Indeed, one of the major issues is to describe and explain how new patterns of polysemy (or, more broadly,

6 See e.g. Matras & Sakel (2007b); Heine (2008); Wiemer & Wächli (2012: 27–36); Grant (2012: 195–196). See the remarks of Shisha-Halevy (1990) for this phenomenon in Coptic.

polyfunctionality) occur under the impact of language contact. This phenomenon has received various labels over time, including *identification* (Weinreich 1953); *borrowed meanings* (Breu 2003); *polysemy copying* (Heine & Kuteva 2005); *pivot-matching* (Matras & Sakel 2007b); *distributional assimilation* (Gast & van der Auwera 2012).

Even if they differ with respect to the types of mechanisms and explanations involved, these labels all refer to a similar phenomenon that one can synthesize as follows: “Given one form *x* in the model language (M) and one form *y* in the target language (T), which share at least one similar function/meaning so that they can be matched by speakers, the number of functions of *y* in T is extended, based on the polysemy network of *x* in M.”

For the sake of illustration, an example quoted by Matras (2009: 26) shows the influence of German on Hebrew in the case of a 4:6-year-old child:

- (1) German – M  
*Das ist aber schön!*  
 this is but nice  
 “This is very nice indeed!”
- Hebrew – T  
*ze avál yafé!*  
 this but nice  
 “This is very nice indeed!”

As Matras points out (2009: 27), *aber* in German is a modal particle that is identical to a contrastive conjunction (‘but’), while in Hebrew, the translation equivalent *avál* (‘but’) has only the contrastive function. The bilingual child, in this particular instance of discourse, identifies the two (‘pivot-matching’), which licenses the use of *avál* as a modal particle, thereby expanding its polysemy network with a new function.

## 2.2 Polysemy and MAT transfer

In the domain of MAT transfer, on the other hand, i.e., when a sign (a form-meaning pairing) is borrowed, questions related to the transfer of polysemic items have been studied much less systematically. This is especially true for grammatical items<sup>7</sup> such as adpositions, which are notoriously polysemous.

However, Wiemer & Wälchli (2012) have shown, based on several examples, that MAT and PAT transfers occur often together in grammatical borrowing. They stress that “[a] major question is how much pattern structure a borrowed item can possibly drag along” (Wiemer & Wälchli 2012: 45). This is, in a way, just another way of phrasing the question at the heart of this article. In order to address it, they usefully distinguish two dimensions of *borrowability*:

<sup>7</sup> Heine & Kuteva (2003, 2005, 2012), for instance, explicitly refrain from examining MAT transfers in their study of grammatical change.

- (1) Traditional: what kind of MAT can be borrowed? (*borrowability scales, likelihood of transfer*, focusing on MAT categories and semantic/pragmatic properties of these categories).<sup>8</sup>
- (2) Neglected: as carrier of what kind of PAT?

At this point, it should be noted that this second ('neglected') issue, has already been broached in previous studies on borrowability. Aikhenvald (2007: 26–35), for example, pays attention to semantic aspects of borrowing when she lists – in the 16<sup>th</sup> and final position – ‘unfunctionality and semantic transparency,’ i.e., a lack of polysemy, as among the factors that facilitate borrowing. Regarding the question “as carrier of what kind of PAT?”, Johanson (2002) suggested a basic distinction between:

- (1) *Global copying*, when an entire sign (signifier/signified) is borrowed.
- (2) *Selective copying*, when only certain aspects of a unit from the model code are transferred.

A survey of the literature indicates that the second scenario is typical of the borrowing of polysemous items.<sup>9</sup> However, it seems that there are very few studies focusing specifically on how networks of meanings associated with a polysemic item are transferred from one source language to a target language.

### 3 Adposition borrowing between Greek and Coptic

#### 3.1 The language contact situation

Coptic (Afroasiatic, Egypt) is the latest phase of the Ancient Egyptian language, attested from around the 3<sup>rd</sup> century CE till its speakers shifted to Arabic; this shift probably began around the 10<sup>th</sup> century and ended sometime after the 14<sup>th</sup> century CE.<sup>10</sup> Coptic is characterized by significant dialectal variation (Funk 1988), with about a dozen literary dialects, including Akhmimic, Bohairic, Fayyumic, Lycopolitan, Mesokemic or Middle Egyptian, Sahidic, and a number of additional, more poorly attested dialects and subdialectal varieties (Kasser 2006), as well as a number of nonliterary varieties found in everyday texts (e.g., letters, financial documents, and legal documents). Coptic is written in a variety of Greek-based alphabets, with a number of graphemes adapted from indigenous scripts.

8 Regarding adpositions, Matras (2007) notes that, in the spatial domain: “‘Core’ relations (‘in’, ‘at’, ‘on’) are borrowed less frequently than ‘peripheral’ relations (‘between’, ‘around’, ‘opposite’), and this finds some support in the appearance of ‘between’ as the most frequent borrowing in the sample.” Nothing is said, however, about other semantic domains or about polysemic items.

9 See for instance the remarks in Kukanda (1983: 10, monosemic borrowing of polysemic lexemes in Lingala); Mann (1993); Stolz & Stolz (1996: 108, borrowed elements are often used in a subdomain of their original use); Breu (2003: 361–363, reconfiguration of the signified in T, but “no statement can be made about the percentage of semantic adaptations and the complications that arise in the process”). Wiemer & Wälchli (2012: 45–50) argue that selective copying is the rule rather than the exception.

10 For overviews of Ancient Egyptian-Coptic, see Loprieno (1995), Loprieno & Müller (2012), Allen (2013), Grossman and Richter (2015), or Haspelmath (2015). For an overview of the latest stages of the language, see Quack (2006).

Greek (Indo-European) was spoken and written in Egypt from the early-to-mid first millennium BCE, with limited evidence for contact before Coptic; there are relatively few Greek loanwords in pre-Coptic Egyptian, except for very late Demotic, the stage of Egyptian immediately preceding Coptic (Ray 2007; Rutherford 2010). The varieties of Greek that are relevant to the complex contact situation<sup>11</sup> include the written Koine of the Septuagint, the New Testament, and other literary and non-literary corpora, as well as the local spoken Greek varieties, which sometimes show borrowings (lexical, grammatical, phonological) from local Coptic varieties (Torallas Tovar 2010; this volume).

Little is known for certain about the actual types and extent of Greek-Egyptian bilingualism. Estimates range from extensive to minimal. Some linguists and historians estimate the degree of bilingualism to such an extent that they consider Coptic to be a ‘bilingual variety,’ involving significant ‘code mixing’ (Reintges 2001, 2004b); others are skeptical.<sup>12</sup>

### 3.2 Greek-origin prepositions in Coptic

In order to summarize the formal aspects of the integration of Greek-origin adpositions in Coptic, we make use of the distinction between comparative concepts and descriptive categories articulated by Haspelmath (2010). Beyond both matching the comparative concept ‘adposition,’ Greek and Coptic adpositions – as language-specific descriptive categories – have distinctive characterizations, with some common features but also with several different ones. We note the following:

**First**, inherited Coptic adpositions are prepositions, as are Greek ‘proper’ adpositions.<sup>13</sup>

- (2)     $\pi\pi\alpha\rho\eta\pi\pi\eta\pi\pi\eta\gamma\tau\epsilon$  (John 1:1)  
          *nnahrn-p-noute*  
          in\_presence\_of-ART:M.SG-god  
          ‘in the presence of God’

**Second**, inherited Coptic prepositions can be head-marked, showing suffixed person indexes, while Greek prepositions are not head-marked (in Greek). Table 1 shows the inflection of the allative preposition *e-* in Sahidic (Layton 2004: 70, §86).

11 For details about the Greek-Egyptian contact situation, see Oréal (1999), Fewster (2002), Ray (2007), and Grossman (2013). The study of Greek-origin loanwords in Coptic is currently the object of intensive research in the Database and Dictionary of Greek Loanwords in Coptic (DDGLC) project, headed by Tonio Sebastian Richter (Berlin). The state of the art can be seen on the project’s website: <http://www.uni-leipzig.de/~ddglc/>.

12 For a recent empirical evaluation of the possible influence of Greek on Coptic morphosyntax, see Grossman (2016a), which demonstrates that Greek played no role in the development of the cross-linguistically unusual prefixing preference of Coptic.

13 In Greek, some ‘improper’ adpositions can be postpositional (see e.g., Bortone 2010: 139). See below under §4.2 for the distinction between ‘proper’ and ‘improper’ prepositions in Greek. No adpositions are postpositions in Coptic.

PERSON	PERSON INDEX
1SG	<i>ero-i</i>
2SG.M	<i>ero-k</i>
2SG.F	<i>ero</i>
3SG.M	<i>ero-f</i>
3SG.F	<i>ero-s</i>
1PL	<i>ero-n</i>
2PL	<i>erô-tn</i>
3PL	<i>ero-ou</i>

Table 1: The person paradigm of a head-marked Coptic preposition

**Third**, inherited Coptic prepositions often show allomorphy, depending on whether the preposition has a suffixed person index or a lexical noun phrase complement. Greek prepositions have no such allomorphy (in Greek). Table 2 shows the base allomorphy of some Coptic prepositions (Layton 2004: 163–164, §202).

Lexical noun phrase	Person index	
<i>e-</i>	<i>ero-</i>	ALLATIVE
<i>ša-</i>	<i>šaro-</i>	‘towards’
<i>ha-</i>	<i>haro-</i>	‘under’
<i>etbe-</i>	<i>etbêêt-</i>	‘because of, concerning’
<i>mn-</i>	<i>mma-</i>	COMITATIVE
<i>nahrn-</i>	<i>nahra-</i>	‘in the presence of’
<i>oubē-</i>	<i>oubê-</i>	‘opposite, towards’
<i>ačn-</i>	<i>ačnt-</i>	‘without’

Table 2: Base allomorphy of some Coptic prepositions

**Fourth**, inherited Coptic prepositions are often flags, i.e., mark valential arguments of verbs, as do Greek prepositions (in Greek). In (3), for example, the allative preposition *e-/ero-* marks the stimulus argument.

(3) ἀἰνάυ ἐροϋ (Shenoute, III,38)<sup>14</sup>

*a-i-nau*      *ero-f*  
 PST-1SG-see    ALL-3SG.M  
 ‘I saw him.’

**Fifth**, inherited Coptic prepositions do not govern case on nominal or pronominal complements, while Greek prepositions do (in Greek). In (4), for example, the allative preposition *e-* is incompatible with other case markers, which in Coptic are all prefixes (see Grossman 2015, 2016a).

<sup>14</sup> Cited in Shisha-Halevy (1988: 33).

- (4)
- $\Delta\text{IN}\Delta\Upsilon \text{ EP}\Delta\text{COY}$
- (Shenoute, IV,125)
- <sup>15</sup>

*a-i-nau e-u-rasou*

PST-1SG-see ALL-INDF-dream

'I saw a dream.'

**Sixth**, most inherited Coptic prepositions can occur as predicates in a clause pattern devoted to adverbial predicates, while Greek has no such dedicated pattern.

- (5)
- $\text{ⲧⲏⲙⲙⲁⲓ}$
- (Psalms 90[91]:15)
- <sup>16</sup>

*t<sup>i</sup>-nmma-f*

1SG.PRS-with-3SG.M

'I am with him.'

**Seventh**, inherited Coptic prepositions are either reconstructible to the earliest stages of the language or were grammaticalized (mostly) from relational nouns (e.g., body part terms) or nouns with locative meaning (6), while Greek adpositions are mostly grammaticalized from earlier free adverbial elements.

- (6) Coptic
- $\text{ⲡⲣⲉ-}$
- nṯe-*
- ('of') < Late Egyptian
- $\text{ⲙⲁⲓ}$
- m-di-*
- ('in-hand\_of-')

Table 3 summarizes and compares these properties with respect to inherited Coptic prepositions and Greek prepositions.

PROPERTY	INHERITED COPTIC	GREEK
Linear order	Preposition	(Mostly) preposition
Suffixed person markers	Yes	No
Base allomorphy	Yes	No
Flags	Yes	Yes
Govern nominal case	No	Yes
Predicates in locative predicate clause pattern	Yes	No

Table 3: The features of inherited Coptic and Greek adpositions

Turning to the Greek-origin prepositions in Coptic,<sup>17</sup> we find six that are commonly attested.<sup>18</sup> They are presented in Table 4 below:

15 Cited in Shisha-Halevy (1988: 34).

16 Cited in Layton (2004: 160).

17 For the Greek-origin prepositions in Sahidic, see Shisha-Halevy (1986: 58–61). On prepositions in Coptic in general, see the descriptions of Layton (1981, 2004: 162–172) and Reintges (2004a: 91–115).

18 Two of them,  $\chi\omega\rho\acute{\iota}\varsigma$  (*xôris*) and  $\acute{\omega}\varsigma$  (*hôs*), belong to the 'improper' prepositions in Greek (see §4.2 below).

GREEK FORM	COPTIC FORM		COPTIC MEANING
ἀντί	ΔΝΤΙ	<i>anti</i>	‘instead of’
κατά	ΚΑΤΑ	<i>kata</i>	‘according to, by (distributive)’
παρά	ΠΑΡΑ	<i>para</i>	‘beyond’
πρός	ΠΡΟC	<i>pros</i>	‘for’ (temporal)
χωρίς	ΧΩΡΙC	<i>khôris</i>	‘without’
ὡς	ΖΩC	<i>hôs</i>	‘like, as’

Table 4: Greek-origin prepositions in Coptic

In terms of semantics, it should be noted that none of these six prepositions encodes basic spatial meanings in Coptic, which is consistent with the generalization in Matras (2007) regarding the semantics of the adpositions that are borrowed: adpositions with basic spatial meanings are only rarely borrowed. Note however that *πρός* (*pros*) can encode DIRECTION in Greek, which can be considered a basic spatial meaning. What is interesting here is that Coptic does not borrow this meaning, but rather a more abstract one.

Unlike Greek prepositions in Greek, Greek-origin prepositions in Coptic do not select case-suffixes on the complement. This obviously has an influence on the semantics of the prepositions, since in Greek, prepositions and case markers together constitute constructions. Moreover, they do not form part of compound verbs with inherited lexical items, nor are they identical to free adverbial elements, unlike the ‘proper’ Greek prepositions. Unlike inherited Coptic prepositions, Greek-origin prepositions in Coptic are always compatible with nominal complements, but rarely inflect for person-marking.<sup>19</sup> Nor, with very few exceptions, do they mark valential arguments of verbs. Finally, they cannot be predicates in the clause construction dedicated to adverbial and prepositional predicates. These differences are summarized in Table 5 below.

PROPERTY	INHERITED COPTIC	GREEK	GREEK-IN- COPTIC
Linear order	Preposition	Mostly preposition	Always preposition
Suffixed person markers	Yes	No	Yes, but limited
Base allomorphy	Yes	No	Yes, but limited
Flags	Yes	Yes	No
Govern nominal case	No	Yes	No
Predicates in locative predicate clause pattern	Yes	No	No

Table 5: The features of inherited Coptic and Greek adpositions

This indicates that Greek-origin prepositions are only partially integrated into Coptic morphosyntax, and constitute a distinctive descriptive category of Coptic.

<sup>19</sup> In fact, based on a database of more than a hundred contact situations in which adpositions were borrowed, borrowed adpositions that allow head-marking of person always allow lexical nominal complements, so we have a implicational universal of adposition borrowing (LEXICAL > PRONOMINAL).

In the extant documentation, Coptic dialects do not necessarily borrow the same prepositions (and not with the same frequency), which leads to a rough hierarchy of preposition borrowing across Coptic dialects, based on Table 6:

**κατά** (*kata*) > **προς** (*pros*), **παρά** (*para*) > **ὑπό** (*hōs*), **ὑπὸ** (*khōris*) > **ἀντί** (*anti*)

DIALECTS	κατά <i>kata</i>	προς <i>pros</i>	παρά <i>para</i>	ὑπό <i>hōs</i>	ὑπὸ <i>k'ōris</i>	ἀντί <i>anti</i>
Mesokemic						
Akhmimic						
Fayyumic						
Lycopolitan						
Bohairic						
Sahidic						

Table 6: Greek-origin prepositions across Coptic dialects (shaded boxes indicate attestation)

The focus on **κατά** in this article is motivated by the fact that it is the most frequently borrowed preposition in the Coptic dialects. As noted above, we limit this investigation to Sahidic and Bohairic, which are the dialects that borrow the most prepositions from Greek.

## 4 The Greek-origin preposition **κατά** in Coptic

After a presentation of the corpus used for this case study (§4.1), we examine the polysemy network of **κατά** in Greek (§4.2). Based on a tentative semantic map of the meanings expressed by this preposition in Classical Greek (§4.2.1), we trace the evolution of the polysemy of this preposition in New Testament Greek (§4.2.2). This allows us to systematically compare the meanings attested for **κατά/κατα** in the Greek and Coptic versions of the New Testament (§4.3). Finally, we characterize the integration of **κατά** in the Coptic grammatical system (§4.4).

### 4.1 The corpus

As noted above, the corpus investigated here is limited. We focus on the Coptic versions of the New Testament attested in the Sahidic and Bohairic dialects.<sup>20</sup> It is important to stress

<sup>20</sup> On the New Testament (and more broadly the Bible) as a parallel corpus for language comparison (and the shortcomings of the method), see Cysouw & Wälchli (2007: 95–96); Wälchli (2007); de Vries (2007). See further <http://paralleltxt.info/data/>, with 1169 unique translations of the Bible in more than 900 languages (cf. Mayer & Cysouw 2014).



that this is a corpus of translated texts.<sup>21</sup> As Shisha-Halevy (1990: 100, n. 4) puts it,<sup>22</sup> the kind of language contact between Greek and Coptic in this case

“is (...) a distinct type of bilinguality: not a matter of double linguistic competence, but the contact of two texts. One text is an authoritative source, given, ever-present, decoded (but also interpreted and often imitated) by the author of the target text; the other text is created on the basis of the source text. This is a situation of ‘text in contact’ (encoded with decoded) as well as ‘languages in contact.’”<sup>23</sup>

As such, the generalizations made in this paper apply only to these corpora and not to ‘Greek’ or ‘Coptic’ in general.<sup>24</sup> We assume that this is a sound preliminary step in order to have the description of a single corpus with which it will be possible to compare the grammar and semantics of the preposition in other corpora.<sup>25</sup> Furthermore, since many Coptic texts are full of intertextual citations and ‘echos’ of the New Testament (see, e.g., Behlmer, this volume), it is useful to have a picture of this corpus.

There are at least two advantages to limiting the scope of the study to a relatively small corpus (c. 138 000 tokens in Greek). First, a restricted and relatively homogeneous corpus allows a high degree of granularity in the semantic description. Second, the Coptic dialects dealt with here – Sahidic and Bohairic – are rather heterogeneous themselves, with significant lexical and grammatical differences across sub-corpora. Early and later Bohairic, for example, are quite different in terms of borrowed prepositions: in the former corpus, only *kata* and *pros* are attested, while in later Bohairic, at least five Greek-origin prepositions regularly occur.

## 4.2 The polysemy network of κατά in Greek

The preposition κατά is one of the eighteen so-called ‘proper’ prepositions in Greek<sup>26</sup> and is already attested in the earliest corpora (e.g., Homer). Regarding its semantics, there

21 The juxtaposing of two texts imposes “a semantic judgment, the setting forth of a semantic path which may reasonably be taken to have led from one text to another” (Barr 1979: 285) and “the solution had to be *semantic*, in correct representation of the meanings, and not *formal*, in exact following of the formal patterns of the original” (Barr 1979: 325).

22 See additional methodological remarks in Shisha-Halevy (2007: 23–27).

23 See also the observations in Janse (2002).

24 See Matras & Sakel (2007a: 3) for some generalizations about borrowing that have been proposed with reference to a case study of a single contact situation.

25 In the same vein, see Layton’s (1981) study of compound prepositions in the Sahidic version of the New Testament: “then these results might be used on the one hand to investigate how far the Old Testament books or Shenute represent the same kind of Sahidic as the New Testament, or on the other hand to build a detailed framework within which to define the differences among the dialects.” Layton (1981: 239).

26 They are distinguished from other prepositions by the fact that they share a peculiar morphosyntactic behavior: “beside functioning as prepositions, they can also be found in compound verbs, and have a function similar to English or German verbal particles, as *up* in *give up*, or *auf-* in Germ. *aufhören*, ‘to give up’” (Luraghi 2003: 75). As preverbs, they actualize one or several meanings of the prepositions. ‘Improper’ prepositions, on the other hand, “are adverbs used like prepositions,

is agreement among scholars<sup>27</sup> that this preposition denotes a(n originally downwards) trajectory.<sup>28</sup> It governs two cases:<sup>29</sup>

- (1) genitive, with the spatial meaning “down (from or upon, into)”,
- (2) accusative, with the spatial meaning “throughout, along(side)”.

From Homeric down to Classical Greek, there are significant differences between the senses that can be expressed by this preposition, as well as differences in the relative frequency of these meanings. Based on the corpora, lexicographical tools, and grammatical studies available,<sup>30</sup> the senses of *κατά* governing the accusative and genitive cases can be divided between three semantic domains: the spatial, the temporal, and the conceptual. Here is a list of twelve meanings typically covered by the preposition in Classical Greek:

### (1) Spatial

- (a) Extension (‘throughout’)
- (b) Motion along (‘alongside’)<sup>31</sup>
- (c) Motion downward (‘down from, down upon or over, down into’)
- (d) Direction (‘towards, at’, incl. vows or oaths ‘to, by’ someone)

### (2) Temporal

- (a) Temporal situation (‘at, during’)
- (b) Temporal approximation (‘around, about’)

### (3) Conceptual

- (a) Conformity (‘according to, corresponding to’)
- (b) Area (‘about, concerning’)
- (c) Cause, reason (‘because of’)
- (d) Manner (‘adverbial reading’)
- (e) Distributive (‘by’)
- (f) Hostility (‘against’)

---

but incapable of forming compounds. The case (usually the genitive) following an improper preposition depends on the preposition alone without regard to the verb; whereas a true preposition was attached originally, as an adverb, to a case depending directly on the verb” (Smyth 1920: §1647, see further §1699–1700).

27 See however Brugmann (1904: 479), who suggested that the oldest meaning was probably “along something so as to remain in connection and contact with the object” (“so an etwas entlang, dass man mit dem Gegenstand in Verbindung und Berührung bleibt”) and Humbert (1960: 311) “glissement d’un objet qui épouse une surface inclinée”.

28 On the spatial use of *κατά* in Homer, see Georges (2006).

29 In Cognitive Linguistic terms, one would say that the difference in meaning between the genitive and the accusative is related to the position of the landmark relative to the trajectory.

30 Especially the *Thesaurus Linguae Graecae* and the *LSJ*; for recent linguistic approaches to the polysemy of this preposition, see Luraghi (2003: 197–213); Bortone (2010, especially p. 233 on the later evolution of its uses).

31 We include here fictive motion, e.g. “the island of Cephallenia lies along Acarnania and Leucas” (Th. 2.30.2); see the examples discussed in Méndez Dosuna (2012: 215–218).

#### 4.2.1 Towards a semantic map of the meanings associated with the preposition *κατά*

In the literature, there is apparently no semantic map that covers the full range of meanings expressed by the preposition *κατά* in Greek.<sup>32</sup> The map presented in Figure 2 is therefore tentative and should be evaluated based on further crosslinguistic evidence, but it should be noted that it is compatible with the semantic map drawn in Grossman & Polis (2012) based on a crosslinguistic sample of 54 allative markers in Rice & Kabata (2007); it respects the connectivity hypothesis (Croft 2001: 96) when mapping the diachronic development of *κατά* in Greek; and it integrates the results of Luraghi (2003: 213) regarding the semantic extensions of *κατά* + ACCUSATIVE in Ionic-Attic.

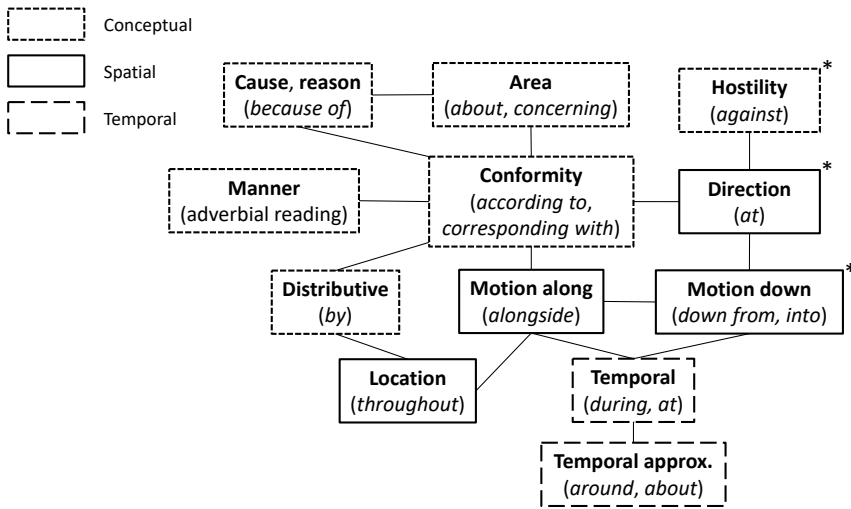


Figure 2: A preliminary semantic map of the senses covered by *κατά* in Classical Greek (the senses marked by \* are expressed by *κατά* + GENITIVE; all others by *κατά* + ACCUSATIVE)

#### 4.2.2 The polysemy network of *κατά* in NT Greek

When compared to Classical Greek, the meaning of *κατά* underwent considerable changes<sup>33</sup> by the time of the New Testament Greek.<sup>34</sup> As already stated by Regard (1919): “[I]es sens

32 Note that the semantic map model has been applied to the preposition *εἰς* (*eis*) in Georgakopoulos (2011).

33 It was already the case during the Ptolemaic Period, see e.g. Mayser (1934: 337): “[d]er erste Blick in eine ptolemäische Urkunde [...] läßt erkennen, daß der Gebrauch der Präpositionen im Vergleich zur klassischen Zeit wesentlich zugenommen hat.” See also Mayser (1934: 427–428): “[d]ie relative Häufigkeit von *κατά* in den ptol. Urkunden übertrifft zwar die des N.T. [...], steht aber weit zurück hinter dem Gebrauch bei Polybios, bei dem *κατά* [...] die allererste Stelle einnimmt und in allerlei neuen Bedeutungen verwendet wird.”

34 For the main tendencies of the evolution of *κατά* in New Testament Greek, see *inter alii* Deissmann (1901: 138–140); Moulton (1908, 1: 98–105); Regard (1919: 466–490); Robertson (1934: 607–609);

*usuels* de l'époque classique sont représentés par un petit nombre d'exemples avec le *génitif*, par un grand nombre avec l'*accusatif*." More precisely, the ratio between *κατά* + GENITIVE and *κατά* + ACCUSATIVE is 16% vs 84% in our data. In terms of distribution and semantics, the analysis of the corpus shows that:

- (1) There are 74 occurrences of *κατά* + GENITIVE.
  - The spatial meanings “down from” (1 token) and “down over, into” (9 tokens) are poorly attested.<sup>35</sup>
  - The “against” (maleficiary) [CONCEPTUAL] meaning is the best attested one (56 tokens; 75% of the examples with genitive).<sup>36</sup>
  - One new SPATIAL meaning appears with the genitive: extension in space “throughout” (= *κατά* + ACCUSATIVE; already in Polybius), but only in *Luke* and *Acts*, and always quantified by ὅλος “entire” (see Regard 1919: 489; Robertson 1934: 607; Blaß, Debrunner & Funk 1961: §225).
- (2) There are 396 tokens of *κατά* + ACCUSATIVE.
  - The conformity meaning [CONCEPTUAL], with its variants “in accordance with, according to, similarly to,” is attested 240 times and represents more than 50% of all the occurrences of *κατά* in the New Testament.
  - The distributive meaning [CONCEPTUAL] is also well attested, with 57 tokens.
  - Extension of the meaning of the preposition to the SPATIAL allative meaning “to,” which was not attested in Classical Greek (diachronically, only the semantics associated with the trajectory remains).

Figure 3 provides a detailed overview of the distribution of the meanings associated with *κατά* in New Testament Greek.<sup>37</sup>

---

Moule (1959: 58–sq.); Blaß, Debrunner & Funk (1961: §224–225; §248,1); Balz & Schneider (1990); Porter (1994: 162–164); Arndt & Gingrich (2000: s.v.).

35 For Ptolemaic Greek, see Mayser (1934: 428): “[d]ie locale Bedeutung (von – herab) ist völlig erloschen. Dagegen ist der reine Genitiv mit der Richtung nach unter [...] in zwei Beispielen vertreten.”

36 See also Modern Greek, e.g., ψήφισε κατά του νέου νόμου “(s)he voted against the new law.”

37 Note that three meanings attested in Koine Greek are not attested in New Testament Greek: motion “to,” vow “towards,” “for (duration).”

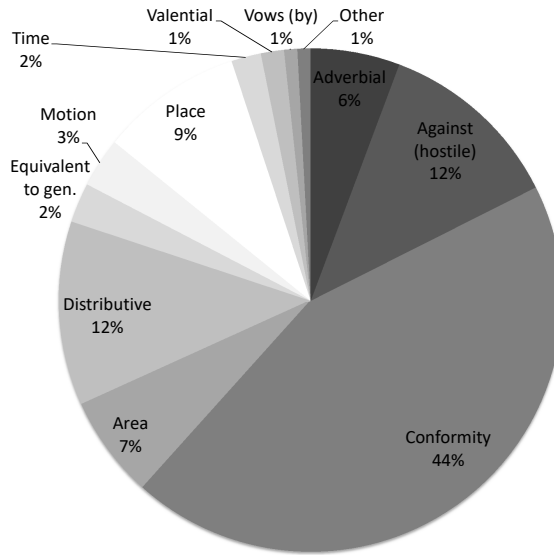


Figure 3: Distribution of the senses of κατά in New Testament Greek

As shown by Figure 4, the frequency of the preposition in the different books of the New Testament varies considerably:<sup>38</sup> the *Apocalypse* and the *Gospels* cluster together with few tokens of κατά, *Acts* occupies an intermediary position, and the Epistles showing a high number of tokens.

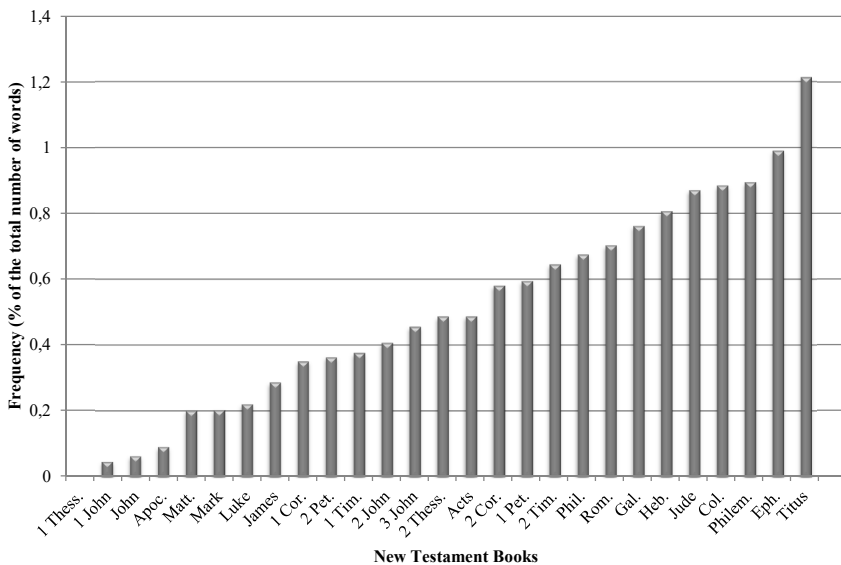


Figure 4: Token frequency of κατά in the New Testament

<sup>38</sup> On the types or varieties of Greek in the New Testament, see Horrocks (2010: 149).

### 4.3 The polysemy network of *κατά* in Coptic

Existing grammatical descriptions usually emphasize two meanings for this Greek-origin preposition in Coptic: (1) the CONFORMITY meaning “according to, like” (e.g., Shisha-Halevy 1986: 58; Layton 2004: §200–202) and the DISTRIBUTIVE meaning “X by X” (e.g., Reintges 2004a: 110).

Based solely on these accounts of the meaning of the preposition, one might naturally infer that among all the functions attested for the preposition *κατά* in post-Classical Greek, Coptic borrowed the *two best attested meanings* of *κατά* + ACCUSATIVE. In turn, this would indicate that:

- (1) frequency matters;
- (2) meanings belonging to the CONCEPTUAL domain (not only forms, but form-function pairing) are favored in this case of borrowing, which is expected given the borrowability scales (cf. fn. 8);
- (3) the cases (genitive *vs* accusative) might have an influence on borrowability, since none of the senses attested for *κατά* + GENITIVE are borrowed.

In fact, the actual distribution of *κατά* in the corpora examined here is more diverse and leads to more fine-grained conclusions about the borrowing of this polysemic item.

#### 4.3.1 Meanings of *κατά* in New Testament Coptic

The analysis of the corpus shows that the meanings expressed by *κατά* + GENITIVE are never PAT-transferred:<sup>39</sup> both Bohairic and Sahidic Coptic use other constructions to encode these functions. Frequency is probably not the only factor here, since the meanings expressed by *κατά* + GENITIVE are never borrowed, not even the maleficiary semantic role (“against”)<sup>40</sup> which represents 12% of the tokens of *κατά* in New Testament Greek. As already noted by Godron (1965) while commenting on a rare occurrence of *κατά* with this meaning in Sahidic (possibly directly influenced by the Greek *Vorlage*), “[t]rès probablement, cette acception de *κατά* n’a jamais été d’un usage courant, d’abord parce qu’elle constituait un doublet inutile du vieux mot, bien égyptien, *e-* et sans doute aussi, à cause d’une ambiguïté possible que le grec évitait par l’emploi de cas différents, je veux parler de la signification ‘conformément à’, ‘selon’, passée en copte, presque contradictoire avec le sens de ‘contre’”. In other words, both the existence of inherited Coptic expressions for this meaning and the possible ambiguity with the ‘positive’ meaning “according to” induced by the lack of an opposition between genitive and accusative cases in Coptic might have acted as inhibiting factors for the PAT-transfer of this meaning of the preposition.

39 Outside this corpus, see Shisha-Halevy (1986: 58 n. 146) for Shenoutean Sahidic: “I have found no instance of *kata* in the sense ‘against’ or ‘as for’”. In the documentary corpus, see however *CPR* IV, 1,7 [vii<sup>th</sup>–viii<sup>th</sup>], quoted by Förster (2002: 384).

40 The fact that *κατά* + GENITIVE was not borrowed has never been an obstacle to the borrowing of compound Greek verbs and nouns such as *καταφρονει* *kataphronei* “to disdain,” *καταλαλει* *katalalei* “to slander,” etc. It is therefore worth noticing that a phenomenon such as the one which took place with the Greek prefix *πο-* (cf. Funk 1978: 102–103) did not occur with *κατά*.

On the other hand, several meanings expressed by *κατά* + ACCUSATIVE in Greek are indeed PAT-transferred, both in the Sahidic and in the Bohairic versions of the New Testament.<sup>41</sup> The borrowing is almost systematic for the conformity meaning and usual for other conceptual meanings of the preposition.

**Conformity** (“according to”, “corresponding with”, “by”)

- (7) *Greek* ἀποδώσει αὐτῷ ὁ κύριος κατὰ τὰ ἔργα αὐτοῦ (2 Tim. 4:14)  
*Sahidic* ερεπχοειс τωδβεναϣ κατανεϣρβηγε  
*ere-p-čoeis* *tôôbe=na-f* *kata-ne-f-hbêue*  
*Bohairic* ερεπχοис †ωβιωναϣ κατανεϣρβηογι  
*ere-p-cois* *tišebiô=na-f* *kata-ne-f-hbêoui*  
 FUT-ART:M.SG-Lord repay=DAT-3SG.M according-POSS:PL-3SG.M-deeds  
 “The Lord will repay him according to his deeds.”<sup>42</sup>
- (8) *Greek* οὐ κατὰ τὴν διαθήκην ἣν ἐποίησα τοῖς πατράσιν αὐτῶν (Heb. 8:9)  
*Sahidic* ενκατατ.διαθекηαν ενταιαас mnneyiote  
*en-kata-t-diat<sup>h</sup>êkê=an* *ent-aiaas* *mn-neu-eiote*  
 NEG<sup>1</sup>-corresponding\_to-ART:F.SG-covenant=NEG<sup>2</sup> REL-I\_made\_it with-their-fathers  
*Bohairic* каτат.διαθекηан етаисемнѣтс nemnouiou†  
*kata-t<sup>i</sup>-diat<sup>h</sup>êkê=an* *et-aisemnêts* *nem-nou-iot<sup>i</sup>*  
 corresponding\_to-ART:F.SG-covenant=NEG REL-I\_established\_it with-their-fathers  
 “(...) not after the covenant that I made with their fathers.”
- (9) *Greek* κατὰ ἀποκάλυψιν ἐγνωρίσθη μοι τὸ μυστήριον (Eph. 3:3)  
*Sahidic* каτaоуϣωλп εβολ аγтамoi eпmγcтhpiон  
*kata-ou-côlp* *ebol* *a-u-tamo-i* *e-p-mustêrion*  
*Bohairic* каτaоуϣωрп εβολ аγтамoi eпmγcтhpiон  
*kata-ou-côrp* *ebol* *a-u-tamo-i* *e-pi-mustêrion*  
 by-INDF-revelation outside PST-3PL-tell-1SG ALL-ART:M.SG-mystery  
 “The mystery was made known to me by revelation.”

**Area** (“about”, “concerning”, “regarding”)

- (10) *Greek* κατὰ δικαιοσύνην τὴν ἐν νόμῳ (γενόμενος ἄμεμπτος) (Phil. 3:6)  
*Sahidic* каτaт.δικαιοcγнн etωooп знпnomoc  
*kata-t-dikaiousunê* *et-šoop* *hm-p-nomos*  
 regarding-ART:F.SG-righteousness REL-exist in-ART:M.SG-law  
*Bohairic* катaт.мѣомнн etxenpi-nomos  
*kata-t<sup>i</sup>-met<sup>h</sup>mêi* *et-xen-pi-nomos*  
 regarding-ART:F.SG-righteousness REL-in-ART:M.SG-law  
 “(...) blameless) as regards the righteousness which is in the law.”

Note that *κατά* is usually not borrowed in Coptic when the “area” meaning in Greek is understood as a genitival construction:

41 Approximately 70% of the occurrences of *κατά* in Greek are rendered with *κατα* in Coptic.

42 English translations usually follow the English Standard Version.

- (11) *Greek* ὁ Φῆστος τῷ βασιλεῖ ἀνέθετο τὰ κατὰ τὸν Παῦλον (λέγων) (Acts 25:14)

<i>Sahidic</i>	ΦΗCΤOC	αφταμεπρo	εφωB
	<i>p<sup>h</sup>êstos</i>	<i>a-f-tame-p-rro</i>	<i>e-p-hôb</i>
	Festus	PST-3SG.M-tell-ART:M.SG-king	ALL-ART:M.SG-matter
	ΗΠΑΓΛOC	εφχΩ	
	<i>m-paulos</i>	<i>e-f-čô</i>	
	of-Paul	SBRD-3SG.M-say	

<i>Bohairic</i>	αΦΗCΤOC	χαπζωB	ΗΠΑΓΛOC	ἡατοτq
	<i>a-p<sup>h</sup>êstos</i>	<i>k<sup>h</sup>a-p-hôb</i>	<i>m-paulos</i>	<i>xatot-f</i>
	PST-Festus	put-ART:M.SG-matter	of-Paul	in_the_hands-3SG.M
	ΗΠOΓPΟ	εφχΩ		
	<i>m-p-ouro</i>	<i>e-f-čô</i>		
	of-ART:M.SG-king	SBRD-3SG.M-say		

“(…) Festus explained to the king the matter concerning Paul, (saying …)”

#### Distributive (“by”)<sup>43</sup>

- (12) *Greek* τὸ πνεῦμα τὸ ἅγιον κατὰ πόλιν διαμαρτύρεται μοι (Acts 20:23)

<i>Sahidic</i>	πεπνευμα	ετογaaB	pmntpehai	καταπολιC
	<i>pe-pneuma</i>	<i>et-ouaab</i>	<i>rmntre=na-i</i>	<i>kata-polis</i>
	ART:M.SG-Spirit	REL-is_holy	testify=DAT-1SG	DISTR-town
<i>Bohairic</i>	πιπνευμα	εθoγaaB	qepmeθpehni	καταπολιC
	<i>pi-pneuma</i>	<i>et<sup>h</sup>-ouab</i>	<i>f-ermet<sup>h</sup>re=nê-i</i>	<i>kata-polis</i>
	ART:M.SG-Spirit	REL-is_holy	3SG.M-testify=DAT-1SG	DISTR-town

“The Holy Spirit testifies for me from town to town.”

- (13) *Greek* κατὰ δὲ ἐορτὴν ἀπέλυνεν αὐτοῖς ἓνα δέσμιον (Mark 15:6)<sup>44</sup>

<i>Sahidic</i>	καταφαιε	φαφκωναγ	εβολ	νογα	εφσηπ
	<i>kata-ša=de</i>	<i>ša-f-kô=na-u</i>	<i>ebol</i>	<i>n-oua</i>	<i>efcêp</i>
	DISTR-feast=PTCL	HAB-3SG.M-release=DAT-3PL	outside	ACC-INDF	imprisoned
<i>Bohairic</i>	καταφαιαιε	ναφχΩ	νογαι	εφconηνωoy	εβολ
	<i>kata-p-šai=de</i>	<i>na-f-k<sup>h</sup>ô</i>	<i>n-ouai</i>	<i>efsonh=nô-ou</i>	<i>ebol</i>
	DISTR-ART-feast=PTCL	IMPF-3SG.M-release	ACC-one	imprisoned=DAT-3PL	outside

“Now at each feast he used to release one prisoner for them.”

43 Mostly with nouns referring to numbers, space, and time, except when inherited adverbial expressions such as *mmêne* *mmêne* ‘daily’ (cf. Shisha-Halevy 1986: 43) or *terompe* ‘yearly, a year’ (cf. Shisha-Halevy 1986: 45; see Reintges 2004: 100 on *καταρομπε katarompe* ‘each year’).

44 Note that TEMPORAL EXTENSION (see below, example 14) appears to be another possible reading both in Greek and Coptic.



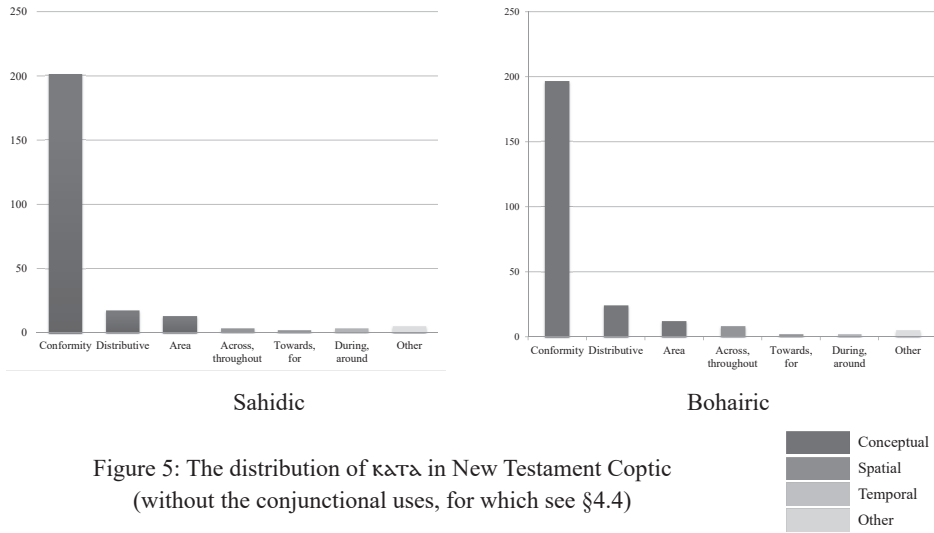


Figure 5: The distribution of *κατα* in New Testament Coptic (without the conjunctive uses, for which see §4.4)

As shown by Figure 5, the conceptual meanings documented in earlier grammatical descriptions are by far the best represented both in Sahidic and in Bohairic, but *κατα* also occurs – even though much less frequently – with some temporal and spatial meanings. In the temporal sphere, the preposition occurs in both dialects when the *κατα*-headed phrase refers to an extension in time:

#### Temporal extension (“during”, “around”)

(14) *Greek* κατὰ τὴν ἡμέραν τοῦ πειρασμοῦ ἐν τῇ ἐρήμῳ (Heb. 3:8)

*Sahidic* καταπεροου ηπιπρασμος ρντερημος

*kata-p-ehoou m-p-piramos hn-t-erêmos*

during-ART:M.SG-day of-ART:M.SG-trial in-ART:M.SG-desert

*Bohairic* καταπεροου ντεπιπρασμος νερηι ριπασαφ

*kata-pi-ehoou nte-pi-piramos nhrêi hi-p-šafe*

during-ART:M.SG-day of-ART:M.SG-trial below on-ART:M.SG-desert

“(Do not harden your hearts as in the rebellion), during the day of testing in the desert.”

In the spatial domain, on the other hand, Sahidic and Bohairic behave differently. While the allative/purposive use of *κατα* is attested in both dialects, it is only Bohairic that expresses local extension with this preposition when the context excludes a distributive interpretation.

**Goal (“towards”)**(15) *Greek* κατὰ σκοπὸν διώκω (Phil. 3:14)*Sahidic* ⲉⲓⲡⲏⲧ ⲕⲁⲧⲁⲡⲉⲥⲕⲟⲡⲟⲥ*e-i-pêt kata-pe-skopos*

FOC-1SG-run toward-ART:M.SG-goal

*Bohairic* ⲕⲁⲧⲁⲟⲩⲥⲟⲙⲥ ⲉⲃⲟⲗ ⲉⲓⲟⲩⲁⲓ*kata-ou-soms ebol e-i-coči*

toward-INDF-look\_forth outside FOC-1SG-run

“(Forgetting what lies behind and straining forward to what lies ahead),  
I press on toward the goal (for the prize of the upward call of God in  
Christ Jesus).”<sup>45</sup>

**Spatial extension (“across”, “through”, “throughout”)**(16) *Greek* οὔτε ἐν ταῖς συναγωγαῖς οὔτε κατὰ τὴν πόλιν (Acts 24:12)<sup>46</sup>*Sahidic* ⲟⲩⲁⲉ ⲉⲛⲛⲉⲩⲥⲩⲛⲁⲓⲁⲓ ⲟⲩⲁⲉ ⲉⲛⲧⲏⲧⲓⲡⲟⲗⲓⲥ*oude hn-neu-sunagôgê oude hn-t-polis*

neither in-their-synagogue neither in-ART:F.SG-city

*Bohairic* ⲟⲩⲁⲉ ⲉⲛⲛⲓⲥⲩⲛⲁⲓⲁⲓ ⲟⲩⲁⲉ ⲕⲁⲧⲁⲡⲟⲗⲓⲥ*oude xen-ni-sunagôgê oude kata-polis*

neither in-ART:PL-synagogue neither across-city

“(And they did not find me either in the temple...) or in the synagogues  
or across the city.”

(17) *Greek* διήρχοντο κατὰ τὰς κώμας εὐαγγελιζόμενοι (Luke 9:6)<sup>47</sup>*Sahidic* ⲛⲉⲩⲙⲟⲟⲩⲉⲡⲉ ⲕⲁⲧⲁⲧⲏⲉ ⲉⲃⲉⲃⲁⲓⲧⲉⲗⲓⲥⲉ*ne-u-mooše=pe kata-t̄me e-u-euaggelize*

IMPF-3PL-go=PTCL through-village SBRD-3PL-preach\_the\_gospels

*Bohairic* ⲛⲁⲩⲙⲟⲩⲧⲏⲡⲉ ⲕⲁⲧⲁⲧⲏⲓ ⲉⲃⲉⲃⲱⲉⲛⲛⲟⲩⲩⲩ*na-u-mošt=pe kata-t̄mi e-u-hišennoufi*

IMPF-3PL-go=PTCL through-village SBRD-3PL-preach\_the\_gospels

“(And they departed) and went through the villages, preaching the gospels  
(and healing everywhere).”

In the first example above, *hn* (*hn*) is used instead of *kata* in Sahidic, probably because the spatial extension is the only interpretation available in this context. In the second case, on the other hand, a distributive reading (“village by village”, or the like) is possible and *kata* is attested both in Sahidic and Bohairic. We shall see in Section 4.3.2 below that

45 This is one of the very rare examples in which a Greek-origin preposition plays a role in marking valency patterns in Coptic.

46 The spatial extension of this example could be more appropriately characterized as a FICTIVE MOTION, see Luraghi (2003) and Méndez Dosuna (2012).

47 Note that the “across” meaning in Greek derives from the combination of the prefix *διά-* of the verb with the prepositional phrase introduced by *κατά*, whereas in Coptic *κατά* alone denotes the SPATIAL EXTENSION meaning.

despite a very similar usage distribution of the Greek-origin preposition *κατά* in Sahidic and Bohairic (cf. Fig. 5 and Fig. 6), meaningful dialectal differences can be identified.

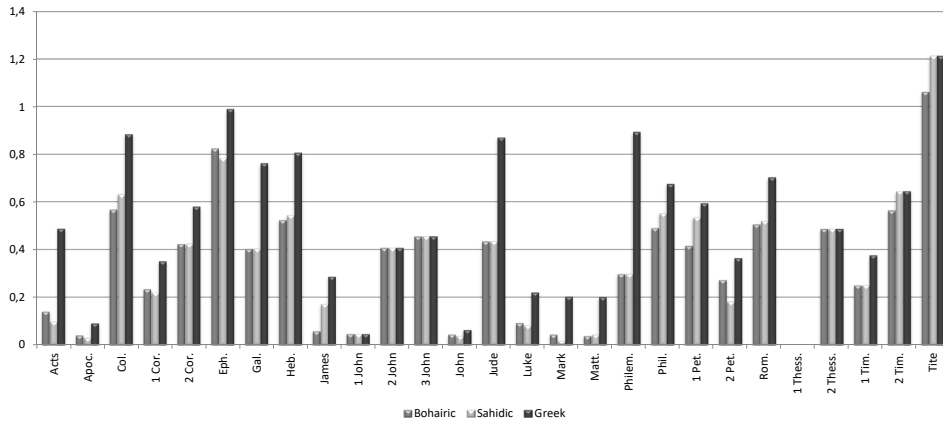


Figure 6: The frequency of *κατά* in the New Testament (percentage of the total number of words)

#### 4.3.2 Differential borrowing between Sahidic and Bohairic

A case of differential borrowing between Sahidic and Bohairic is to be found at the margins of the CONFORMITY/AREA conceptual domains. Whenever the norm “according to” or “in relation to” which the predication takes place is understood as a REASON or as a CAUSE, *κατά* tends not to be used in Bohairic, which prefers the inherited preposition *ὑεν* (*xen*), whereas *κατά* is commonly attested in Sahidic for this meaning.<sup>48</sup>

##### Cause (“because of”) – Sahidic only

- (18) *Greek* Εἰ ἔξεστιν ἀνθρώπῳ ἀπολῦσαι τὴν γυναῖκα αὐτοῦ κατὰ πᾶσαν αἰτίαν  
(Matt. 19:3)

*Sahidic* *ene-ek'estei m-p-rôme enouče ebol n-te-f-shime*  
Q-is\_allowed DAT-ART:M.SG-man INF-throw away ACC-POSS:F.SG-3SG.M-wife  
*κατααἰτία nim*  
*kata-aitia nim*  
for-reason any

*Bohairic* *an-sše nte-pi-rômi hi-te-f-shimi ebol*  
*an-sše nte-pi-rômi hi-te-f-shimi ebol*  
Q-it\_is\_right SBJV-ART:M.SG-man put-POSS:F.SG-3SG.M-wife outside  
*ḥennobi niben*  
*xen-nobi niben*  
in-sin any  
“Is it lawful for a man to divorce one’s wife for any reason?”

<sup>48</sup> Compare however the Sahidic and Bohairic versions of Phil. 4.11.

- (19) *Greek* μηδὲν κατ' ἐριθείαν μηδὲ κατὰ κενοδοξίαν (Phil. 2:3)  
*Sahidic* ⲉⲛⲧⲉⲧⲏⲣⲗⲁⲁⲅⲁⲛ ⲕⲁⲧⲁⲟⲩⲧⲁⲩⲛ  
*en-tetn-r-laau=an kata-ou-t'-tôn*  
 SBIV-2PL-do-anything=NEG according\_to-INDF-CAUS-dispute  
 ⲟⲩⲁⲉ ⲕⲁⲧⲁⲟⲩⲙⲏⲧⲟⲩⲟⲩⲩ  
*oude kata-ou-mntšoušou*  
 neither according\_to-INDF-boastfulness  
*Bohairic* ⲛⲧⲉⲧⲉⲛⲉⲣⲗⲓⲁⲛ ⲙⲉⲛⲟⲩⲱⲥⲛⲏⲛ ⲟⲩⲁⲉ ⲙⲉⲛⲟⲩⲙⲁⲓⲱⲩⲟⲩ  
*n-teten-er-hli=an xen-ou-šcnên oude xen-ou-maiôou*  
 NEG<sup>1</sup>-2PL.PRS-do-anything=NEG<sup>2</sup> in-INDF-strive neither in-INDF-conceit  
 ⲉⲩⲱⲩⲟⲩⲧⲧ  
*e-f-šouit*  
 SBRD-3SG.M-empty  
 “Do not do anything because of ambition or vain conceit.”

Another case of differential borrowing is the Greek expression *κατά* + CARDINAL NUMBER, which is not rendered similarly in Sahidic and Bohairic. In New Testament Sahidic, *κατά* is never used in this case: the determined cardinal number is repeated, a construction attested in both Coptic and Koine Greek.<sup>49</sup> In Bohairic, on the other hand, there is an opposition between *ø*-determined numbers (*κατά* *ø*-noun *ø*-noun)<sup>50</sup> and determined numbers (*κατά* is not used, only repetition).<sup>51</sup>

49 Shisha-Halevy (1986: 46) “[t]he syntagm ‘*ø*-noun *lexeme* → *ø*-noun *lexeme*’ is a member of the *postadjunctive* modifier paradigm and occupies a slot in the valency matrix with no further marking”. Layton (2004: 52–53, §62): The reiteration of the definite article phrase as the meaning “each..., every..., Each and every...” while the zero article phrase reiterated has the meaning “One ... after another, ... by ...”. Layton (2004: 175, §228): “[a]dverbial modifiers expressing successive distribution (one ... after another; ... by ...) are formed by reiteration of any zero article phrase or bare cardinal number, without initial preposition. E.g. \*ⲗⲟⲟⲩⲩ \*ⲗⲟⲟⲩⲩ *hoou hoou* one day after another, day by day, daily; \*ⲙⲁ \*ⲙⲁ *ma ma* one place after another; \*ⲩⲙⲏⲛ \*ⲩⲙⲏⲛ *šēm šēm* little by little; ⲟⲩⲁ ⲟⲩⲁ *oua oua* one by one; ⲥⲛⲁⲩ ⲥⲛⲁⲩ *snau snau* two by two.”

50 The construction *κατά* *ø*-NOUN *ø*-NOUN is also attested in Sahidic (see e.g. Layton 2004: 53, §62.b.iv) but does not seem to occur in the New Testament. In the Manichaean variety of Lycopolitan (L4), one regularly finds this construction, which appears at first glance to be a redundant marking of the distributive function, with both adpositional marking (by means of *κατά*) and reduplication. This is not unexpected in language contact situations, since Muysken (2008: 179–180), for instance, observes that prepositions borrowed from Spanish collocate with inherited case markers in informal spoken Quechua.

51 On ‘doubling’ in Coptic, see further Bosson (1995: esp. 112): “il faut noter que la juxtaposition d’expressions composées ou de simples vocables, dont l’acception est identique (bien que souvent le vocabulaire des unes soit plutôt d’origine pharaonique, celui des autres, d’origine grecque), est un trait caractéristique de la langue copte. Ce phénomène reflète une sorte de besoin pour les Coptes de renforcer la notion qu’ils souhaitent exprimer en la répétant de façon multiple.”

**Distributive (number) – Bohairic only**

(20) *Greek* ἐξηγεῖτο καθ' ἑν ἕκαστον ὃν ἐποίησεν ὁ θεὸς (Acts 21:19)

<i>Sahidic</i>	ⲁⲩⲧⲁⲩⲉⲡⲟⲩⲁ	ⲡⲟⲩⲁ	ⲛⲛⲉⲣⲃⲏⲩⲉ
	<i>a-f-taue-poua</i>	<i>p-poua</i>	<i>n-ne-hbéue</i>
	PST-3SG.M-pronounce-ART:SG.M-one	ART:SG.M-one	ACC-ART:PL-things
	ⲛⲧⲁⲡⲛⲟⲩⲩⲉ	ⲁⲁⲩ	
	<i>nt-a-p-noute</i>	<i>aa-u</i>	
	REL-PST-ART:M.SG-God	do-3PL	

<i>Bohairic</i>	ⲛⲁⲩⲙⲁⲩⲓ	ⲭⲁⲧⲟⲩⲟⲩ	ⲕⲁⲧⲁⲟⲩⲁⲓ	ⲟⲩⲁⲓ	ⲛⲛⲏ
	<i>na-f-sači</i>	<i>xatot-ou</i>	<i>kata-ouai</i>	<i>ouai</i>	<i>n-né</i>
	IMPF-3SG.M-say	to-3PL	DISTR-one	one	ACC-DEM:PL
	ⲉⲧⲁⲫⲧ	ⲁⲓⲧⲟⲩ			
	<i>et-a-p<sup>h</sup>&lt;nou&gt;t<sup>i</sup></i>	<i>ait-ou</i>			
	REL-PST-God	do-3PL			

“(After greeting them), he related one by one the things that God had done (among the Gentiles through his ministry).”

(21) *Greek* τὸ δὲ καθ' εἷς ἀλλήλων μέλη (Rom 12:5)

<i>Sahidic</i>	ⲡⲟⲩⲁⲁⲉ	ⲡⲟⲩⲁ	ⲁⲛⲟⲛ-ⲙ-ⲙⲉⲗⲟⲥ	ⲛ-ⲛⲉⲛ-ⲉⲣⲏⲩ
	<i>p-oua=de</i>	<i>p-oua</i>	<i>anon-m-melos</i>	<i>n-nen-erêu</i>
	ART:SG.M-one=PTCL	ART:SG.M-one	1PL-ART:PL-part	of-our-fellows

<i>Bohairic</i>	ⲡⲓ-ⲟⲩⲁⲓ	ⲡⲓ-ⲟⲩⲁⲓ	ⲙⲙⲟⲛ	ⲁⲛⲟⲛⲭⲁⲛⲙⲉⲗⲟⲥ	ⲛⲧⲉ-ⲛⲉⲛ-ⲉⲣⲏⲟⲩ
	<i>pi-ouai</i>	<i>pi-ouai</i>	<i>mmo-n</i>	<i>anon-han-melos</i>	<i>n-te-nen-erêou</i>
	ART:SG.M-one	ART:SG.M-one	of-1PL	1PL-INDEF.PL-part	of-our-fellows

“So we are each of us members of each other.”

In Figure 7 below, the meanings identified for the Greek-origin preposition *κατά* in New Testament Coptic are highlighted on the semantic map presented in §4.2.1 (Figure 2). As can be observed, most of the meanings frequently attested in New Testament Greek (§4.2.2 & Figure 3) are indeed PAT-transferred in Coptic, but there are also some differences between dialects in terms of the non-core meanings of the preposition. Furthermore, the maleficiary (“against”) meaning, which represents no less than 12% of the attestations of *κατά* in the Greek version, is not attested for the preposition *κατά* in New Testament Coptic (§4.3.1). One might speculate that, besides the existence of several inherited constructions for expressing this meaning, the incompatibility of nominal case with adposition in Coptic might have impeded the borrowing. Indeed, *κατά* + ACCUSATIVE “in accordance with,” is clearly distinct from *κατά* + GENITIVE “against” in Greek, whereas the lack of case in Coptic would have led to two rather opposite meanings “in accordance with” vs “against” for a single construction: *κατά* + NOUN.

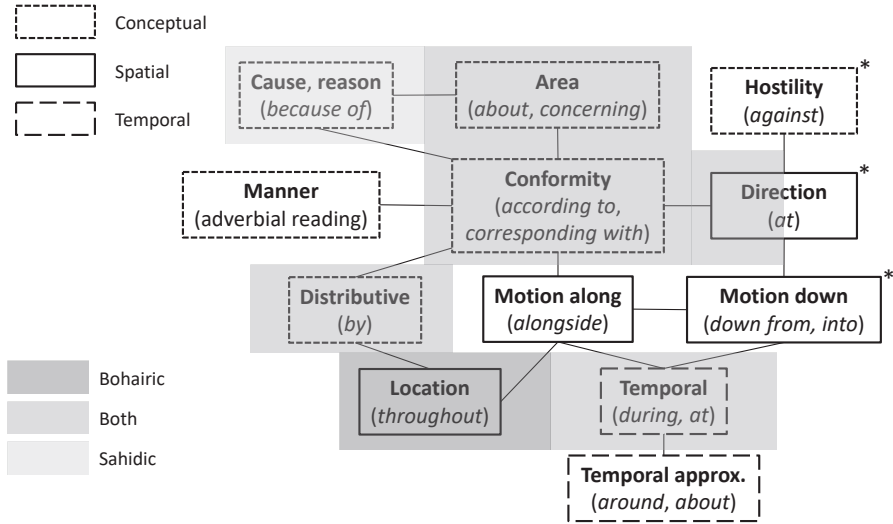


Figure 7: The meanings covered by  $\kappa\tau\alpha$  in Bohairic and Sahidic

One observes that, strictly speaking, the meanings of  $\kappa\tau\alpha$  do not cover a connected region on the semantic map either in Bohairic or in Sahidic. This is mainly due to the fact that MOTION-associated meanings are not attested in New Testament Coptic for this preposition. However, if one takes a more statistical approach, one observes that more than 93% of the uses of the preposition correspond to a connected region of the map.<sup>52</sup>

#### 4.4 The integration of $\kappa\tau\alpha$ in the Coptic grammatical system

In this section, the integration of  $\kappa\tau\alpha$  in the Coptic grammatical system is evaluated, mostly focusing on the Sahidic version of the New Testament.<sup>53</sup> Until this point, we have systematically excluded uses of  $\kappa\tau\alpha$  in Coptic that are not expressed by  $\kappa\alpha\tau\acute{\alpha}$  in Greek. However, the Greek-origin preposition was used in many cases where Greek prefers another construction (c. 45% of the occurrences of  $\kappa\tau\alpha$  in Sahidic).

The preposition  $\kappa\tau\alpha$  is indeed used productively in Sahidic when Greek has another construction (e.g.,  $\pi\rho\acute{o}\varsigma$  or  $\delta\iota\acute{\alpha}$  + ACCUSATIVE, adverbs, etc.) with a meaning associated with the conceptual domain covered by  $\kappa\tau\alpha$  in Coptic (7 examples). Such examples are good evidence for the semasiological integration of  $\kappa\tau\alpha$  in the Coptic grammatical system for expressing senses such as “in accordance with” (CONFORMITY) and “each, by” (DISTRIBUTIVE):

52 Furthermore, the temporal extension meaning (‘during’) is likely to be connected to the spatial extension meaning (‘throughout’) on the semantic map based on a proper typological survey.

53 Following Shisha-Halevy (1986), one can suggest that the assimilation scale of a loanword can be established “in terms of productivity, of integration into the Coptic semasiological system, and (sometimes) in terms of phonological structure and properties [...]”

**Conformity** – Greek *πρός* vs Coptic *κατα*(22) *Greek* μὴ (...) ποιήσας πρὸς τὸ θέλημα αὐτοῦ (Luke 12:47)*Sahidic* εἰπικρε καταπεφογω*e-mp-f-ire kata-pe-f-ouôš*

SBRD-NEG.PST-3SG.M-do according\_to-POSS:M.SG-3SG.M-will

“(And that servant who knew his master’s will but did not get ready or) act according to his will...”

**Distributive** – Greek *different constructions* vs Coptic *κατα*(23) *Greek* νηστεύω δις τοῦ σαββάτου (Luke 18:12)*Sahidic* ἡνικεγε νκοπ كناخ καταسابατον*t<sup>h</sup>-nêsteue n-sop snau kata-sabbaton*

1 SG.PRS-fast MOD-time two DISTR-week

“I fast twice a week, (I give tithes of all that I get).”

(24) *Greek* διήλθον εὐαγγελιζόμενοι τὸν λόγον (Acts 8:4)<sup>54</sup>*Sahidic* αἰμοοσε εἰταθεοειω ἡπαχε καταπολις*a-u-mooše e-u-tašoeiṣ m-p-šače kata-polis*

PST-3PL-go SBRD-3PL-preach ACC-ART:M.SG-word DISTR-city

“(Now, those who were scattered) went about preaching the word.”

Furthermore, the comparative locution *καταθε* + RELATIVE CLAUSE<sup>55</sup> (literally “following the manner that”) translates many Greek adverbs and conjunctions in Sahidic: ὥς (6), ὥσπερ (2), ὡσαύτως (1), ἐφ’ ᾧ (1), καθά (1), καθότι (4), καθάπερ (10), καθὼς (171). The following examples illustrates the highly productive use of *καταθε* + RELATIVE CLAUSE for rendering such Greek idioms:

**Greek** *καθὼς, ὥς, etc.* – **Coptic** *καταθε*(25) *Greek* ὁ μὲν υἱὸς τοῦ ἀνθρώπου ὑπάγει καθὼς γέγραπται περὶ αὐτοῦ (Matt 26:24)*Sahidic* πωηρεμεν ἡπρωμε ναβωκ*p-šêre=men m-p-rôme na-bôk*

ART:M.SG-son=PTCL of-ART:M.SG-man FUT-go

*καταθε εἰ-χη εἰτβηητ-ϣ**kata-t-he et-sêh etbêêt-f*

according\_to-ART:F.SG-manner REL-written concerning-3SG.M

“(The Son of Man goes) as it is written about him.”

54 Note the relationship between the use of verbs with the prefix *διά-* in Greek and prepositional phrases with *κατα* in Coptic (see above the note on example 17).

55 See Layton (2004: 505–506) regarding the adverbial expression of comparison *just as, as* *ἵνα* and *καταθε*. Comparison of equality can also be introduced either by the Coptic expression *n-t-he* ≠ *m-p<sup>h</sup>-rêti* “as, like (lit. in the way/manner...)”. Sometimes, other words of similar semantics such as *smot* “pattern,” *mine* “sort, quality, manner,” *cot* “size, form,” or *maiê* “kind” are employed (see Müller, this volume).

- (26) *Greek* καὶ ὡς εἰώθει πάλιν ἐδίδασκεν αὐτούς (Mark 10:1)  
*Sahidic* ⲁϣⲱ ⲕⲁⲧⲁⲑⲉ ⲉϣⲁⲩⲁⲁⲥ  
*auô kata-t-he e-ša-f-aa-s*  
 and according\_to-ART.F.SG-manner REL-HAB-3SG.M-do-3SG.F  
 ⲁⲩⲥⲱⲛⲛⲁⲩ  
*a-f-t<sup>i</sup>-sbô=on=na-u*  
 PST-3SG.M-teach=again=DAT-3PL  
 “And again, as was his custom, he taught them”

From a morphosyntactic viewpoint, even if *κατα* inflects for person-marking in Coptic<sup>56</sup> (i.e., *καταρο- kataro-*), the allomorph seems to be systematically avoided in the translation of the New Testament. As a result, the occurrences of *κατά* + PRONOUN in Greek are rendered by other constructions in Coptic. The only exceptions (only two occurrences) are found in Sahidic (but never in Bohairic) when *κατα* functions as an intensifier. Compare the following examples:

- (27) *Greek* ὡς καὶ τινες τῶν καθ' ὑμᾶς ποιητῶν εἰρήκασιν (Acts 17:28)  
*Sahidic* ⲛⲉⲉⲟⲛ ⲛⲧⲁⲗⲟⲓⲛⲉ ⲛⲛⲉⲧⲛⲡⲟⲓⲧⲏⲥ ⲭⲟⲟⲥ  
*nt<sup>h</sup>e=on nt-a-hoine n-ne-tn-poitēs čoo-s*  
 in\_the\_manner=even REL-PST-some of-POSS:PL-2PL-poet say-3SG.F  
*Bohairic* ⲙⲡⲣⲏⲧ ⲉⲧⲁϣⲭⲟⲥ ⲛⲭⲉⲗⲁⲛⲕⲉⲭⲱⲟⲩⲛⲓ ⲉⲃⲟⲗ  
*mp<sup>h</sup>rêṭ et-a-u-čō-s nčē-han-kek<sup>h</sup>ōouni ebol*  
 in\_the\_manner REL-PST-3PL-say-3SG.F NOM-INDE.PL-others outside  
 ⲭⲉⲛⲛⲓⲡⲟⲓⲧⲏⲥ ⲉⲧⲭⲉⲛⲏⲟⲩ  
*xen-ni-poitēs et-xen-t<sup>h</sup>ēnou*  
 in-ART:PL-poet REL-in-2PL  
 “(‘In him we live and move and have our being’), as even some of your own poets have said.”
- (28) *Greek* νεκρά ἐστὶν καθ' ἑαυτήν (James 2:17)  
*Sahidic* ⲉⲥⲛⲟⲟϣⲧ ⲕⲁⲧⲁⲣⲟⲥ  
*e-s-moout kataro-s*  
 SBRD-3SG.F-dead according\_to-3SG.F  
*Bohairic* ⲩⲙⲟⲟϣⲧ ⲭⲁⲣⲓⲭⲁⲣⲟⲩ  
*f-mōout xarixaro-f*  
 3SG.M-dead INTENS-3SG.M  
 “(So also, the faith, if it does not have works,) is dead by itself.”

This intensifier use of the person-marked form of *κατα* is further illustrated by the following example, where New Testament Greek has the adjective ἴδιος:

56 Shisha-Halevy (1986: 59) “[o]f all Greek origin prepositions, only *κατα* and *παρά* have pre-pronominal allomorphs (*καταρο-*, *παραρο-*).” Since then, a few occurrences of *πρὸς*- (< Greek *πρός*) have been noted (see Layton <sup>2</sup>2004: 200).



- (29) *Greek* (ὁ δὲ θεὸς δίδωσιν αὐτῷ σῶμα καθὼς ἠθέλησεν,) καὶ ἐκάστῳ τῶν σπερμάτων ἴδιον σῶμα (1 Cor. 15:38)
- Sahidic* ⲁⲓⲱ ⲟⲩⲥⲱⲙⲁ ⲙⲡⲟⲩⲁ ⲡⲟⲩⲁ ⲛ-ⲛⲉ-ⲉⲣⲱⲱⲉ ⲕⲁⲧⲁⲣⲟⲩ  
 auō ou-sōma m-p-oua p-oua n-ne-crōōc kataro-f  
 and one-body DAT-ART:M.SG-one ART:M.SG-one of-ART.PL-seed by-3SG.M  
 “(But God gives it a body as he has decided), and to each kind of seeds its own body.”

It is beyond the scope of the present paper to further evaluate the multiple dimensions of the integration of ⲕⲁⲧⲁ in the Coptic grammatical system, even though this preposition would be an ideal candidate for a thorough study, since it is attested quite early in Egyptian documents,<sup>57</sup> and one could describe the successive steps of its integration into Coptic. What matters here is that ⲕⲁⲧⲁ could be used productively in the Coptic New Testament, even when Greek opted for other expressions, and entered semasiological domains that were not originally associated with the Greek preposition.

## 5 Conclusions

This paper provides empirical evidence for addressing the main question of Section 2.2: when a lexical item is transferred from one language to another, how much PAT does it carry along? As we have seen, Johanson (2002) made a distinction between *global copying*, when an entire sign (signifier+signified) is borrowed, and *selective copying*, when only certain aspects of a unit from the model code are transferred.

*Global copying* is certainly not appropriate for describing the borrowing of ⲕⲁⲧⲁ, since several uses of the preposition in Greek are not PAT-transferred into Coptic, even though the semantics of the preposition in Sahidic and Bohairic is much richer than one might imagine when looking at the existing grammatical and lexicographical descriptions: besides the conceptual senses (CONFORMITY, AREA, DISTRIBUTIVITY), SPATIAL (“throughout, towards”) and TEMPORAL (“during”) meanings are also attested. As a matter of fact, it is doubtful whether languages do ever borrow an entire complex polysemy network.

*Selective copying* thus appears to be a more appropriate description. However, even if limited in terms of frequency, the differences between the meanings borrowed in Sahidic and Bohairic (§4.3.2) show that the structural ‘ecology’ of the target language may constrain the outcome of the borrowing in terms of PAT. Moreover, the occurrence of uses that are not known to the source language (§4.4) show that the label *selective copying* is not much more felicitous. As such, we suggest rather referring to a process of *adaptive copying* when referring to cases in which partial PAT-transfer and the development of new functions occurs, as we have shown in the case study on ⲕⲁⲧⲁ in Section 4.

<sup>57</sup> Indeed, in the Narmouthis ostraca (c. 2<sup>nd</sup> century A.D.), we have an early example of a “Greek embedded language island [... which] did not intrude into the Egyptian structure in [its] capacity as function word” (Richter 2008, referring to ⲕⲁⲧⲁ ⲁⲗⲓⲁⲛ in *ODN* 184,10; the fact that the Greek accusative is used for ⲁⲗⲓⲁⲛ is telling in this respect).

Furthermore, we have shown that the functions associated with  $\kappa\alpha\tau\alpha$  in Coptic do not correspond to a clearly connected region on a semantic map, as one might have expected based on the connectivity hypothesis (Croft 2001: 96). This lack of connectivity seems to be due to the fact that the core spatial meaning motion ('along') is not borrowed in Coptic. However, it should be pointed out that this meaning is not at all salient in New Testament Greek, which may have led to its absence in our corpus. As such, the lack of connectivity, while synchronically puzzling, may have a simple diachronic explanation (cf. van der Auwera's [2008] claim that the best semantic map is a diachronic semantic map). The selective and adaptive copying of parts, not necessarily contiguous, of a polysemy network, points to the need for a more fine-grained *constructional* approach to borrowing, in which 'matter' is copied context-by-context.<sup>58</sup>

Finally, from a methodological point of view, we have argued that both semantic maps and the distinction between comparative concepts and descriptive categories allow linguists to describe the integration of linguistic items into the semantic and morphosyntactic structures of a target language in a precise way. Semantic maps state the network of poly-functionality associated with a particular item, as well as the relationships between the diverse functions or senses, while the comparison of descriptive categories allows a fine-grained analysis of the integration of an item or class of items into the grammar of the target language. This approach has already produced some interesting results. For example, in Grossman & Richter (this volume), it is argued that Greek-origin infinitives do not carry over all of their morphosyntactic properties into Greek, but nor do they behave identically to inherited Coptic infinitives. Grossman (2016b) shows that Greek loan verbs in Coptic are integrated only partially into the Coptic transitive construction, in some respects behaving like bivalent intransitives, which in turn suggests that we may have to speak of 'loanword transitivities' as we do of 'loanword phonologies.' In the present article, we have shown that Greek-origin prepositions pattern like inherited Coptic prepositions primarily with respect to the properties that Greek prepositions and Coptic prepositions share anyway, and acquire only gradually and partially the particular properties that differentiate between the Greek and Coptic categories.

As a final envoi, a point to consider is whether the facts of language contact – both matter replication and pattern replication – indicate that Haspelmath's comparative concepts are in some respects cognitively 'real': bilingual speakers seem to make use of them, as do translators, when they match structurally distinct descriptive categories from different languages within their repertoire.

## References

- Aikhenvald, Alexandra Y. 2007. Grammars in Contact. A Cross-linguistic perspective, in: Alexandra Y. Aikhenvald & Robert M.W. Dixon (eds.), *Grammars in Contact. A Cross-Linguistic Typology*, Oxford: Oxford University Press, 1–66.
- Allen, James P. 2013. *The Ancient Egyptian Language: An Historical Study*, Cambridge: Cambridge University Press.

58 Cf. The remarks in fn. 3 regarding the semantic map model.

- Arndt, W.F. & F.W. Gingrich. 2000. *A Greek-English Lexicon of the New Testament and Other Early Christian Literature. A Translation and Adaptation of Walter Bauer's Griechisch-Deutsches Wörterbuch zu den Schriften des Neuen Testaments und der übrigen urchristlichen Literatur*, Chicago: The University of Chicago Press.
- van der Auwera, Johan. 2008. In defense of classical semantic maps, in: *Theoretical Linguistics* 34, 39–46.
- Balz, Horst & Gerhard M. Schneider (eds.). 1990. *Exegetical Dictionary of the New Testament*, 3 vol., Grand Rapids: Eerdmans.
- Behlmer, Heike. This volume. Differentiating Lexical Borrowing according to Semantic Fields and Text Types – A Case Study, in: Eitan Grossman, Peter Dils, Tonio Sebastian Richter & Wolfgang Schenkel (eds.), *Greek Influence on Egyptian-Coptic. Contact-Induced Change in an Ancient African Language*, DDGLC Working Papers 1, *Lingua Aegyptia Studia Monographica* 17, Hamburg: Widmaier, 457–478.
- Blaß, Friedrich, Alabert Debrunner & Robert W. Funk. 1961. *A Greek Grammar of the New Testament and Other Early Christian literature*, Chicago: University of Chicago Press.
- Barr, J. 1979. *The Typology of Literalism in Ancient Biblical Translations*, Mitteilungen des Septuaginta-Unternehmens XV, Göttingen: Vandenhoeck & Ruprecht.
- Bortone, Pietro. 2010. *Greek Prepositions: From Antiquity to present*, Oxford: Oxford University Press.
- Bosson, Nathalie. 1995. Expression de la comparaison en langue copte saïdique, in: *Faits de langue* 3/5, 109–122.
- Breu, Walter. 2003. Bilingualism and linguistic interference in the Slavic-Romance contact area of Molise (Southern Italy), in: Regine Eckardt, Klaus von Heusinger & Christoph Schwarze (eds.), *Words in Time, Trends in Linguistics. Studies and Monographs* 143, Berlin & New York: Mouton de Gruyter, 351–373.
- Brugmann, Karl. 1904. *Kurze vergleichende Grammatik der indogermanischen Sprachen*, Leipzig.
- Croft, William. 2001. *Radical Construction Grammar: Syntactic theory in typological perspective*, Oxford: Oxford University Press.
- Cysouw, Michael & Bernhard Wälchli. 2007. Parallel texts. Using translational equivalent in linguistic typology, in: *Sprachtypologie & Universalienforschung* 60/2, 95–99.
- Deissmann, Gustav Adolf. 1901. *Bible Studies. Contributions, Chiefly from Papyri and Inscriptions, to the History of the Language, the Literature, and the Religion of Hellenistic Judaism and Primitive Christianity*, tr. par A.J. Grieve, Edinburgh: T. & T. Clark.
- Fewster, Penelope. 2002. Bilingualism in Roman Egypt, in: J.N. Adams, Mark Janse & Simon Swain (eds.), *Bilingualism in Ancient Society. Language Contact and the Written Text*, Oxford: Oxford University Press, 220–245.
- Förster, Hans. 2002. *Wörterbuch der griechischen Wörter in den koptischen dokumentarischen Texten, Texte und Untersuchungen zur Geschichte der altchristlichen Literatur* 148, Berlin & New York: de Gruyter.
- Funk, Wolf-Peter. 1978. Zur Syntax des koptischen Qualitativs, in: *Zeitschrift für ägyptische Sprache und Altertumskunde* 105, 94–114.
- 1988. Dialects wanting homes: A numerical approach to the early varieties of Coptic, in: Jacek Fisiak (ed.), *Historical dialectology: Regional and Social*, Berlin & New York: Mouton de Gruyter, 149–192.
- Gast, Volker & Johan van der Auwera. 2012. What is ‘contact-induced grammaticalization’? Examples from Mayan and Mixe-Zoquean languages, in: Björn Wiemer, Bernhard Wälchli & Björn Hansen, *Grammatical Replication and Borrowability in Language Contact*, Trends in Linguistics. Studies and Monographs 242, Berlin & New York: De Gruyter Mouton, 381–426.
- Godron, Gérard. 1965. Un sens de la préposition κατὰ en sahidique, in: *Bulletin de l'Institut Français d'Archéologie Orientale* 63, 135–137.
- Georgakopoulos, Thanasis. 2011. *Gnosiaki proseggisi tis simasiologikis allagis ton protheseon tis Ellinikis: I periptosi tis eis* [A cognitive approach to semantic change in Greek prepositions: The

- case of eis]. Unpublished doctoral dissertation. National and Kapodistrian University of Athens, Greece.
- Georgakopoulos Thanasis, Daniel A. Werning, Jörg Hartlieb, Tomoki Kitazumi, Lidewij E. van de Peut, Annette Sundermeyer & Gaëlle Chantrain. 2016. The meaning of ancient words for 'earth'. An exercise in visualizing colexification on a semantic map, in: *eTopoi. Journal for Ancient Studies* 6 (34 pages).
- Georges, Coulter H. 2006. The spatial use of ἀνά and κατά with the accusative in Homer, in: *Glotta* 82, 70–95.
- Grant, Anthony P. 2012. Processes of grammaticalization and 'borrowing the unborrowable': Contact-induced change and the integration and grammaticalization of borrowed terms for some core grammatical construction types, in: Björn Wiemer, Bernhard Wälchli & Björn Hansen, *Grammatical Replication and Borrowability in Language Contact*, Trends in Linguistics. Studies and Monographs 242, Berlin & New York: De Gruyter Mouton, 191–232.
- Grossman, Eitan. 2010. Greek-origin prepositions in Coptic, talk at the conference "Linguistic Borrowing into Coptic", Leipzig, 27 April 2010.
- 2013. Greek Loanwords in Coptic, in: *Encyclopedia of Ancient Greek Language and Linguistics*. Available online at: [http://referenceworks.brillonline.com/entries/encyclopedia-of-ancient-greek-language-and-linguistics/greek-loanwords-in-coptic-EAGLLSIM\\_00000469](http://referenceworks.brillonline.com/entries/encyclopedia-of-ancient-greek-language-and-linguistics/greek-loanwords-in-coptic-EAGLLSIM_00000469).
- 2015. No case before the verb, obligatory case after the verb in Coptic, in: Eitan Grossman, Martin Haspelmath & Tonio Sebastian Richter (eds.), *Egyptian-Coptic Linguistics in Typological perspective*, Berlin: De Gruyter Mouton, 203–225.
- 2016a. Did Greek influence the Coptic preference for prefixing? A quantitative-typological perspective, accepted to *Journal of Language Contact*.
- 2016b. Transitivity in contact: the case of Coptic. Submitted to a special issue of *Journal of Language Contact*.
- Grossman, Eitan & Martin Haspelmath. 2015. The Leipzig-Jerusalem transliteration of Coptic, in: Eitan Grossman, Martin Haspelmath & Tonio Sebastian Richter (eds.), *Egyptian-Coptic Linguistics in Typological perspective*, Berlin: De Gruyter Mouton, 145–153.
- Grossman, Eitan & Stéphane Polis. 2012. Navigating polyfunctionality in the lexicon. Semantic maps and Ancient Egyptian lexical semantics, in: Eitan Grossman, Stéphane Polis & Jean Winand (eds.), *Lexical Semantics in Ancient Egyptian*, Lingua Aegyptia Studia Monographica 9, Hamburg: Widmaier Verlag, 175–225.
- Grossman, Eitan & Tonio Sebastian Richter. 2015. The Egyptian-Coptic language: its setting in space, time and culture, in: Eitan Grossman, Martin Haspelmath & Tonio Sebastian Richter (eds.), *Egyptian-Coptic Linguistics in Typological perspective*, Berlin: De Gruyter Mouton, 69–101.
- Grossman, Eitan & Tonio Sebastian Richter. This volume. Dialectal Variation and Language Change. The Case of Greek Loan-Verb Integration Strategies in Coptic, in: Eitan Grossman, Peter Dils, Tonio Sebastian Richter & Wolfgang Schenkel (eds.), *Greek Influence on Egyptian-Coptic. Contact-Induced Change in an Ancient African Language*, DDGLC Working Papers 1, Lingua Aegyptia Studia Monographica 17, Hamburg: Widmaier, 207–236.
- Hagège, Claude. 1997. Les relateurs comme catégorie accessoire et la grammaire comme composante nécessaire, in: *Faits de langue* 9, 19–28.
- 2010. *Adpositions. Function-marking in human languages*, Oxford Studies in Typology and Linguistic Theory, Oxford: Oxford University Press.
- Haspelmath, Martin. 2010. Comparative concepts and descriptive categories: consequences for language description and typology, in: *Language* 86, 663–687.
- 2015. A grammatical overview of Egyptian and Coptic, in: Eitan Grossman, Martin Haspelmath & Tonio Sebastian Richter (eds.), *Egyptian-Coptic Linguistics in Typological perspective*, Berlin: De Gruyter Mouton, 103–143.
- Heine, Bernd. 2008. Contact-induced word order change without word order change, in: Siemund & Kintana 2008, 33–60.

- Heine, Bernd & Tania Kuteva. 2003. Contact-induced grammaticalization, in: *Studies in Language* 27, 529–572.
- 2005. *Language Contact and Grammatical Change*, Cambridge: Cambridge University Press.
- 2012. An integrative model of grammaticalization, in: Björn Wiemer, Bernhard Wälchli & Björn Hansen, *Grammatical Replication and Borrowability in Language Contact*, Trends in Linguistics. Studies and Monographs 242, Berlin & New York: De Gruyter Mouton, 159–190.
- Horrocks, Geoffrey C. 2010. *Greek. A History of the Language and its Speakers*, Oxford: Wiley & Blackwell.
- Humbert, Jean. 1960. *Syntaxe grecque*, Paris: Klincksieck.
- Janse, Mark. 2002. Aspects of bilingualism in the history of the Greek language, in: J.N. Adams, Mark Janse & Simon Swain (eds.), *Bilingualism in Ancient Society: Language Contact and the Written Text*, Oxford: Oxford University Press, 332–390.
- Johanson, Lars. 2002. Contact-induced change in a code-copying framework, in: Mari C. Jones & Edith Esch (eds.), *Language Change. The Interplay of Internal, External and Extra-Linguistic Factors*, Berlin & New York: Mouton de Gruyter.
- Koptjevskaja-Tamm, Maria. 2008. Approaching lexical typology, in: Vanhove 2008, 3–52.
- Kukanda, Vatomene. 1983. *L'emprunt français en lingála de Kinshasa: Quelques aspects de son intégration phonétique, morphologique, sémantique et lexicale*, Tübingen: G. Narr Verlag.
- Kasser, Rodolphe. 2006. KAT'ASPE ASPE: constellations d'idiomes coptes plus ou moins bien connus et scientifiquement reçus, aperçus, pressentis, enregistrés en une terminologie jugée utile, scintillant dans le firmament égyptien à l'aube de notre troisième millénaire, in: Louis Painchaud & Paul-Hubert Poirier (eds.), *Coptica – Gnostica – Manichaica: mélanges offerts à Wolf-Peter Funk*, Bibliothèque copte de Nag Hammadi, section 'Études' 7, Leuven & Paris: Presses de l'Université Laval & Peeters, 389–392.
- Layton, Bentley. 1981. Compound Prepositions in Sahidic Coptic, in: Dwight W. Young (ed.), *Studies presented to Hans Jakob Polotsky*, East Gloucester, MA: Pirtle & Polson, 239–268.
- 2004. *A Coptic Grammar: with Chrestomathy and Glossary. Sahidic Dialect*, 2<sup>nd</sup> revised and expanded ed., Porta Linguarum Orientalium 20, Wiesbaden: Harrassowitz.
- Loprieno, Antonio. 1995. *Ancient Egyptian. A Linguistic Introduction*, Cambridge: Cambridge University Press.
- Loprieno, Antonio & Matthias Müller. 2012. Ancient Egyptian and Coptic, in: Zygmunt Frajzyngier & Erin Shay (eds.), *The Afroasiatic Languages*, Cambridge: Cambridge University Press, 102–144.
- Luraghi, Silvia. 2003. *On the Meaning of Prepositions and Cases. The Expression of Semantic Roles in Ancient Greek*, Studies in Language Companion Series 67, Amsterdam & Philadelphia: John Benjamins.
- LSJ = H.G. Liddell, R. Scott & Henry Stuart Jones (1996), *A Greek-English Lexicon*, Oxford: Clarendon Press.
- Mann, Ch.C. 1993. Polysemic functionality of prepositions in Pidgins & Creoles: The case of 'fò' in Anglo-Nigerian Pidgin, in: Francis Byrne & John Holm (eds.), *Atlantic meets Pacific: A Global View of Pidginization and Creolization*, Amsterdam & Philadelphia: John Benjamins, 58–67.
- Matras, Yaron. 2007. The borrowability of structural categories, in: Matras & Sakel 2007a, 31–73.
- 2009. *Language Contact*, Cambridge Textbooks in Linguistics, Cambridge: Cambridge University Press.
- Matras, Yaron & Jeanette Sakel (eds.). 2007a. *Grammatical Borrowing in Cross-Linguistic Perspective*, Empirical Approaches to Language Typology 38, Berlin & New York: Mouton de Gruyter.
- 2007b. Investigating the mechanisms of pattern replication in language convergence, in: *Studies in Language* 31.1, 829–865.
- Mayer, Thomas & Michael Cysouw. 2014. Creating a massively parallel Bible corpus, in: *Proceedings of LREC 2014*, 3158–3163.

- Mayser, Edwin. 1934. *Grammatik der Griechischen Papyri aus der Ptolemäerzeit mit Einschluss der gleichzeitigen Ostraka und der in Ägypten verfassten Inschriften*, vol. II/2, Berlin & Leipzig: de Gruyter.
- Méndez Dosuna, Julián. 2012. Some remarks on the spatial use of Greek παρά, ὑπέρ, κατά and περί: Fictive motion and fictive meanings, in: *Glotta* 88, 191–223.
- Moule, C.F.D. 1959. *An Idiom Book of New Testament Greek*, Cambridge: Cambridge University Press.
- Moulton, James Hope. 1908–1976. *A Grammar of New Testament Greek*, 4 vol., Edinburgh: T. & T. Clark.
- Müller, Matthias. This volume. Greek connectors in Coptic. A contrastive overview I, in: Eitan Grossman, Peter Dils, Tonio Sebastian Richter & Wolfgang Schenkel (eds.), *Greek Influence on Egyptian-Coptic. Contact-Induced Change in an Ancient African Language*, DDGLC Working Papers 1, *Lingua Aegyptia Studia Monographica* 17, Hamburg: Widmaier, 265–315.
- Muysken, Pieter. 2008. *Functional categories*. Cambridge: Cambridge University Press.
- Oréal, Elsa. 1999. Contact linguistique. Le cas du rapport entre le grec et le copte, in: *LALIES* 19, 289–306.
- Polis, Stéphane. 2010. Coptic κατά vs Greek κατά. A case-study in Contrastive Semantics, talk at the conference “*Linguistic Borrowing into Coptic*”, Leipzig, 27 April 2010.
- . 2013. Polysemy in Language Contact. Borrowing of the Greek-origin adposition κατά in Coptic, talk at the 46<sup>th</sup> Annual Meeting of the Societas Linguistica Europaea, Split, 20 September 2013.
- Porter, Stanley E. 1994. *Idioms of the Greek New Testament*, Biblical Languages – Greek 2, Sheffield: Jso Press.
- Quack, Joachim Friedrich. 2006. En route vers le copte, in: *Faits de langue* 27(2), 191–216.
- Ray, John. 2007. Greek, Egyptian, and Coptic, in: Anastasios-Phoivos Christidis (ed.), *A History of Ancient Greek. From the Beginnings to Late Antiquity*, Cambridge: Cambridge University Press, 811–818.
- Regard, Paul F. 1919. *Contribution à l'étude des prépositions dans la langue du Nouveau Testament*, Paris: Ernest Leroux.
- Reintges, Chris H. 2001. Code-mixing strategies in Coptic Egyptian, in: *Lingua Aegyptia* 9, 193–237.
- . 2004a. Coptic Egyptian (Sahidic Dialect). A Learner's Grammar, Afrikawissenschaftliche Lehrbücher 15, Köln: Rüdiger Köppe.
- . 2004b. Coptic Egyptian as a bilingual language variety, in: Pedro Bádenas de la Peña, Sofia Torallas Tovar & Eugenio R. Luján (eds.), *Lenguas en contacto: el testimonio escrito*, Madrid, 69–86.
- Rice, Sally & Kaori Kabata. 2007. Crosslinguistic Grammaticalization Patterns of the ALLATIVE, in: *Linguistic Typology* 11, 451–514.
- Richter, Tonio Sebastian. 2008. Lexical borrowing in Coptic. A case study in loanword typology (unpublished ms).
- Robertson, Archibald Th. 1934. *A Grammar of the Greek New Testament in the Light of Historical Research*, Nashville: Broadman Press.
- Rutherford, Ian. 2010. Bilingualism in Roman Egypt? Exploring the Archive of Phatres of Narmuthis, in: Trevor V. Evans & Dirk D. Obbink (eds.), *The Language of the Papyri*, Oxford: Oxford University Press, 198–207.
- Sakel, Jeanette. 2007. Types of loan: Matter and pattern, in: Matras & Sakel 2007a, 15–29.
- Shisha-Halevy, Ariel. 1986. *Coptic Grammatical Categories. Structural Studies in the Syntax of Shenoutean Sahidic*, *Analecta Orientalia* 53, Rome: Pontificium Institutum Biblicum.
- . 1988. *Coptic grammatical chrestomathy: A course for academic and private study*, *Orientalia Lovaniensia Analecta* 30, Leuven: Peeters.
- . 1990. The “tautological infinitive” in Coptic: A structural examination, in: *Journal of Coptic Studies* 1, 99–127.
- . 2007. *Topics in Coptic Syntax: Structural Studies in the Bohairic Dialect*, *Orientalia Lovaniensia Analecta* 160, Leuven & Paris: Peeters.



- Siemund, Peter & Noemi Kitana (eds.). 2008. *Language Contact and Contact Languages*, Hamburg Studies on Multilingualism 7, Amsterdam & Philadelphia: John Benjamins.
- Smith, Herbert W. 1920. *A Greek Grammar for Colleges*, New York: American Book Company.
- Stauder-Porcher, Julie. 2016. Earlier Egyptian Prepositions: Between grammar and lexicography, in: James P. Allen, Mark A. Collier & Andréas Stauder (eds.), *Coping with Obscurity: The Brown Workshop on Earlier Egyptian grammar*, Wilbour Studies in Egyptology and Assyriology 3, Atlanta: Lockwood Press, 141–150.
- Stolz, Christel & Thomas Stolz. 1996. Funktionswortentlehnung in Mesoamerika: spanischamerindischer Sprachkontakt (Hispanoindiana II), in: *Sprachtypologie und Universalienforschung* 49/1, 86–123.
- Torallas Tovar, Sofia. 2010. Greek in Egypt, in: Egbert J. Bakker (ed.), *A Companion to the Ancient Greek Language*, 253–266. Oxford: Wiley-Blackwell.
- This volume. The reverse case: Egyptian borrowing in Greek, in: Eitan Grossman, Peter Dils, Tonio Sebastian Richter & Wolfgang Schenkel (eds.), *Greek Influence on Egyptian-Coptic. Contact-Induced Change in an Ancient African Language*, DDGLC Working Papers 1, Lingua Aegyptia Studia Monographica 17, Hamburg: Widmaier, 97–113.
- Vanhove, Martine (ed.). 2008. *From polysemy to semantic change. Towards a typology of lexical semantic associations*, Studies in Language Companion series 106, Amsterdam & Philadelphia: John Benjamins.
- de Vries, Lourens. 2007. Some remarks on the use of Bible translations as parallel texts in linguistic research, in: *Sprachtypologie & Universalienforschung* 60/2, 148–157.
- Wälchli, Bernhard. 2007. Advantages and disadvantages of using parallel texts in typological investigations, in: *Sprachtypologie & Universalienforschung* 60/2, 118–134.
- Weinreich, Uriel. 1953. *Languages in Contact. Findings and Problems*, The Hague & Paris: Mouton.
- Werning, Daniel A. 2012. Ancient Egyptian Prepositions for the Expression of Spatial Relations and their Translations. A typological approach, in: Eitan Grossman, Stéphane Polis & Jean Winand (eds.), *Lexical Semantics in Ancient Egyptian*, Lingua Aegyptia Studia Monographica 9, Hamburg: Widmaier Verlag, 293–346.
- 2014. The semantic space of static spatial prepositions in Hieroglyphic Ancient Egyptian. A comparison with nine Indo-European and Afro-Asiatic languages based on the Topological Relations Picture Series, in: Silvia Kutscher & Daniel A. Werning (eds.), *On Ancient Grammars of Space. Linguistic Research on the Expression of Spatial Relations and Motion in Ancient Languages*, Berlin & Boston: De Gruyter, 2014, 195–325.
- Wiemer, Björn & Bernhard Wälchli. 2012. Contact-induced grammatical change: Diverse phenomena, diverse perspectives, in: Björn Wiemer, Bernhard Wälchli & Björn Hansen, *Grammatical Replication and Borrowability in Language Contact*, Trends in Linguistics. Studies and Monographs 242, Berlin & New York: De Gruyter Mouton, 3–64.
- Winand, Jean. 2016. The Syntax-Semantics Interface in Earlier Egyptian: A case study in verbs of cognition, in: James P. Allen, Mark A. Collier & Andréas Stauder (eds.), *Coping with Obscurity: The Brown Workshop on Earlier Egyptian grammar*, Wilbour Studies in Egyptology and Assyriology 3, Atlanta: Lockwood Press, 109–139.