

## CONIUNCTIVUS MULTIFORMIS

### Conjunctive Morphology in Late Coptic Recipes

Tonio Sebastian RICHTER  
(Berlin, Free University)

**Résumé.** Cette contribution traite de la diversité morphologique du paradigme du conjonctif en Copte. Ce dernier, bien connu comme un critère distinctif des dialectes littéraires, est ici étudié dans les variétés non standards des textes documentaires et des recettes coptes tardives. Les données conduisent à mettre en question l'image nette d'une distribution géographique continue des différents paradigmes morphologiques (§1). On se concentre alors plus spécifiquement sur les recettes coptes tardives, un genre textuel à peine édité et qui n'a, jusqu'à présent, pour ainsi dire pas été exploité d'un point de vue linguistique (§§2-3). À partir d'un relevé exhaustif des occurrences (§4), on décrit la variété des formes morphologiques pour chaque manuscrit (§2), avant d'examiner les motivations fonctionnelles (sémantiques et syntaxiques, ainsi que d'autres facteurs) qui permettraient d'expliquer la diversité formelle (§3).

**Abstract.** The following paper deals with the morphological variety of the Coptic conjunctive paradigm, well-known as a distinguishing feature of Coptic literary dialects, in the de-standardized language of Coptic documentary texts and late Coptic recipes. Both kinds of evidence heavily inquire the neat picture of a continuous spatial distribution of morphologically different paradigms (§1). The focus is put on late Coptic recipes, a sort of text which has scarcely been edited and even less exploited linguistically until now (§§2-3). Based on a comprehensive list of conjunctive instances (§4), the variety of morphologically different conjunctive forms is first described for each single manuscript (§2). Afterwards functional (semantic, syntactic) distinctions and other factors possibly triggering different conjunctive forms are scrutinized (§3).

#### 1. VARIATION IN COPTIC CONJUNCTIVE MORPHOLOGY

The considerable degree of variety in the morphological formation of the Coptic conjunctive paradigm is far from new, and what I shall deal with in the following is very plain in some way, even though not

entirely trivial I hope. In any case, I cannot offer much more than rough linguistic data, of a kind however that may please somebody as sensitive about language registers and diglossia in Egyptian, as this Festschrift's honorand!<sup>1</sup>

I take my starting point at Coptic conjunctive paradigms as emerging from a description of Coptic literary dialects, with their appearance of a regular shift from morphological fullness to morphological reduction form North to South (Tab. 1). Bohairic, the northernmost dialect, displays the morphologically fullest conjunction base  $\text{NT}(\epsilon)\text{-}/\text{=}$ ,<sup>2</sup> a form that easily connects to the Demotic and Late Egyptian conjunctive forms  $\text{mtw}=\text{y sdm}$ ,  $\text{mtw}=\text{k sdm}$  etc.<sup>3</sup> Furthermore, no other literary dialect has the third person plural form still operating with the suffix pronoun  $\text{=}\text{w}$ , thus resisting its replacement by a form identical with the proclitic pronoun  $\text{ce-}$ , as is the standard in all other dialects. At the southern end, the Akhmimic conjunctive morphology displays such a degree of reduction as to having fully converged (the only exceptions being pre-nominal  $\text{te-}$  and 1<sup>st</sup> sg.  $\text{ta-}$ ) with the morphology of the proclitic pronouns of the bipartite conjugation. The other dialects, Fayyumic, Middle Egyptian, Sahidic and Lycopolitan, keep half-way between the extreme dialectal varieties in terms of morphological reduction.

<sup>1</sup> Especially P. Vernus, "Entre néo-égyptien et démotique : la langue utilisée dans la traduction du *Rituel de repousser l'Agressif* (Étude sur la diglossie 1)", *RdÉ* 41 (1991), p. 153-208 (for the conjunctive, cf. 177-182 with a description of eight different contexts of the conjunctive in the *Rituel de repousser l'Agressif*) and P. Vernus, "Langue littéraire et diglossie", in A. Loprieno (ed.), *Ancient Egyptian Literature. History and Forms* (PdÄ 10), 1996, p. 555-564.

<sup>2</sup> Although "n est parfois supprimé", as A. Mallon (*Grammaire Copte*, 1956, p. 119) mentioned; cf. already L. Stern, *Koptische Grammatik*, 1880, p. 273, §441, and G. Steindorff, *Lehrbuch der koptischen Grammatik*, 1951, p. 171, who refers to W.E. Crum, Review of *Bibliothecae Apostolicae Vaticanae... Codices Coptici*, Tomus 1: *Codices Coptici Vaticani*, *JEA* 27 (1942), p. 180 & n. 6.

<sup>3</sup> J. Černý & S.I. Groll, *A late Egyptian Grammar*, 1984, p. 438-451; W. Spiegelberg, *Demotische Grammatik*, 1925, p. 69-74; J.H. Johnson, *The Demotic verbal system* (SAOC 38), 1976, p. 181-192; A. Shisha-Halevy, "Bohairic-Late Egyptian Diaglosses: a Contribution to the Typology of Egyptian", in D.W. Young (ed.), *Studies Presented to Hans Jakob Polotsky*, 1981, p. 424.



	Types	Demotic ancestors	Late Demotic P.Lond.- Leid.	B <sub>5</sub>	F	M	S	L	A
1 sg.	NT(ε) <sup>4</sup> N <sup>4</sup> 0 <sup>4</sup>	mtw=y	mtw (glossed NTA) <sup>4</sup>	NTΔ	NTΔ	NTΔ	NTΔ	NTΔ TΔ	TΔ
2 sg.m	NT(ε) <sup>4</sup> N <sup>4</sup> 0 <sup>4</sup>	mtw=k	mtw=k n-ir=k <sup>5</sup>	NTEK	NK	NK	NI	NI, NK K	K
2 sg.f	NTE <sup>4</sup> N <sup>4</sup> 0 <sup>4</sup>	mtw=t		NTE	NTE	[NTE]	NTE	NTE TE	TE
3 sg.m	NTE <sup>4</sup> N <sup>4</sup> 0 <sup>4</sup>	mtw=f	mtw=f	NTEq	Nq	Nq	Nq	Nq q	q
3 sg.f	NTE <sup>4</sup> N <sup>4</sup> 0 <sup>4</sup>	mtw=s	mtw=s	NTEC	NC	NC	NC	NC	c
1 pl.	NTE <sup>4</sup> N <sup>4</sup> 0 <sup>4</sup>	mtw=n	mtw=n	NTEN	NTEN	NTN	NTN	NTN	TN
2 pl.	NTE <sup>4</sup> N <sup>4</sup> 0 <sup>4</sup>	mtw=tn	mtw=tn	NTETEN	NTETEN	NTET(ε)N	NTETN	NTETN TETN	TETN
3 pl.	NTE <sup>4</sup> N <sup>4</sup> 0 <sup>4</sup>	mtw=w	mtw=w n-st <sup>6</sup>	NT0Y NCE	NCE	NCE	NCE	NCE	CE, C0Y
prenom.	NTE- tε-	mtw-	mtw-	NTE-	NTE-	NTE-	NTE-	NTE-	TE-

Table 1. The Conjunctive paradigm:  
Etymology and shift trough (some) literary dialects

This very appearance, among some other phenomena, gave rise to A. Erman's idea of a lower speed of speech in Northern Coptic, since Bohairic did overall not "slide" so far on the "inclined plane of morphological reduction" as he put it, than Sahidic:<sup>7</sup>

<sup>4</sup> P.Lond.-Leid. xiv,5, cf. J.H. Johnson, *The Demotic Verbal System*, p. 181.

<sup>5</sup> Instances of the morphologically younger type of conjunctive occasionally occurring in the late Demotic magical papyrus London-Leiden, our N- type, are collected by J.H. Johnson (*The Demotic Verbal System*) and J.Fr. Quack (*Demotische Grammatik*. Testversion Sommersemester 2011), and here quoted from J.Fr. Quack: *n-i.ir=k* as a spelling of the 2<sup>nd</sup> person sg.m., e.g. P.Lond.-Leid. xx,26 and 27; xxi,35.

<sup>6</sup> Spelling *n-st* for conjunctive 3<sup>rd</sup> person pl. (quoted from J.Fr. Quack, *Demotische Grammatik*): P.Lond.-Leid. ii,9; xviii,31 (?).

<sup>7</sup> A. Erman, "Unterschiede zwischen den koptischen Dialekten bei der Wortverbindung", Sitzungsberichte der phil.-hist. Klasse der Königlich-Preussischen Akademie der Wissenschaften, 1915, p. 170. Cf. W.C. Till, *Koptische Grammatik: saïdischer*

“wir haben durchweg das gleiche Verhältnis zwischen beiden Dialekten, die vollere, selbständigere Form gehört regelmäßig dem Bohairischen, die kürzere, enger verbundene dem Sahidischen an; (...) Das Sahidische treibt die Verkürzung (...) bis zu  $\overline{\text{Nq}}$  statt zu  $\overline{\text{NTeq}}$ . Das Resultat von dem allen lässt sich nur so formulieren (...): man hat im Bohairischen gemessener gesprochen als im Sahidischen, und so hat sich die Sprache dort etwas besser erhalten als hier. Das Bohairische hat zwar auch den Weg der Enttonung und Verkürzung betreten, aber es ist auf dieser schiefen Ebene noch nicht ganz so weit geglitten wie das Sahidische.”

Caveats against this neat picture can however be found even within the sphere of literary Coptic. The late Coptic literary dialect H reasonably localized at Ashmunein displays a conjunctive paradigm equal to Akhmimic,<sup>8</sup> in terms of “having slid on the inclined plane of morphological reduction”. On the other hand, and more disturbing (since devaluating the possible explanation of diachronic distance taking the role of diatopic diversity), there is evidence of a very full-sounding conjunctive, preserving Tau and Ny, in Subakhmimic<sup>9</sup> and Akhmimic.<sup>10</sup> Even if numerically negligible, such isolated instances are sufficient to prove that the unreduced conjunctive was not alien even to the southernmost Coptic dialects, and was used besides the mostly observed norm being the reduced forms.

Rather exceptional in literary Coptic, the same variation is amply evidenced in the corpus of Coptic documentary texts. Table 2, compiled

---

*Dialekt*, 1955, §321 and W.C. Till, “Anhang: Zum Konjugationspräfix  $\overline{\text{TeK-}}$  usw.”, *ZÄS* 77 (1942), p. 111.

<sup>8</sup> Cf. R. Kasser, “Dialect H (or Hermopolitan or Ashmunic)”, *The Coptic Encyclopaedia*, vol. 8, 1991, p. 79:  $\overline{\text{Ta-}}$ ,  $\overline{\text{K-}}$ ,  $\overline{\text{Th-}}$ ,  $\overline{\text{B-}}$ , [c-], [THN-],  $\overline{\text{ThThN-}}$ ,  $\overline{\text{Ch-}}$ , prenominal  $\overline{\text{Th-}}$ .

<sup>9</sup>  $\overline{\text{NTq-}}$  once in *NHC* I,3 (*Gospel of Truth*), pag. 34,14 (cf. also *Tractatus Tripartitus*, *NHC* I,5, pag. 107,32);  $\overline{\text{NT\text{O}Y-}}$  in *NHC* I,3 (*Gospel of Truth*) according to an unpublished edition by Peter Nagel, p. 30,30-31: Instead of  $\overline{\text{OYAZ\text{N}N OYEMAZTE}}$  (to be analysed as a hapax spelling of the conjunction otherwise spelled  $\overline{\text{OYAZA}}$ ,  $\overline{\text{OYAZ\text{N}}}$ , plus causative infinitive), as editors from M. Malinine, H.Ch. Puech & G. Quispel (*Evangelium veritatis: Codex Jung f.viii<sup>v</sup> - xvi<sup>v</sup>* (p. 16-32) / *f.xix<sup>f</sup> - xxii<sup>f</sup>* (p. 37-43), 1956) onwards used to read, Nagel reasonably divided  $\overline{\text{OYAZ\text{N}N NT\text{OYEMAZTE}}$  ‘and they seized’.

<sup>10</sup>  $\overline{\text{NTq-}}$  (once) in *EpAp* (ed. C. Schmidt, *Gespräche Jesu mit seinen Jüngern nach der Auferstehung*, 1919), pag. 2,14;  $\overline{\text{NT\text{O}Y-}}$  (bis) in the Berlin manuscript of *IClem* (ed. C. Schmidt, *Der erste Clemensbrief in altkoptischer Übersetzung* [TU 32], 1908), pag. 13,29 and 64,26. All of the three instances of  $\overline{\text{NT}}$  are that forms governed by  $\overline{\text{OY\text{N}}}$   $\overline{\text{BAM}}$  ‘it is possible’. Since C. Schmidt (*Der erste Clemensbrief*) emended both instances of  $\overline{\text{NT\text{O}Y-}}$  in *IClem*, instead proposing the causative infinitive  $\overline{\text{AT\text{O}Y-}}$  (as the Strasbourg ms. of *IClem* reads), they disappeared from later scholars’ screens and are not mentioned e.g., in W.C. Till’s *Akhmimic Grammar* of 1928 and P. Nagel’s account of Akhmimic morphology in *The Coptic Encyclopaedia*, cf. however Fr. Rösch, *Vorbemerkungen zu einer Grammatik der achmimischen Mundart*, 1909, p. 159.

from the famous eighth chapter of P. Kahle's *Bala'izah*,<sup>11</sup> makes perfectly clear that unreduced forms, although in none of the literary dialects but Bohairic selected to be normative, were part of the *parole* throughout the Nile valley, which holds true of the 3<sup>rd</sup> person plural pronoun marked by ⲥⲟⲩ instead of ⲥⲉ. A further significant conclusion that can be drawn from the evidence of documentary Coptic is the amazingly high frequency and spread of forms with initial τ-, like ⲧⲉⲕⲥⲱⲧⲙ, ⲧⲉⲙⲥⲱⲧⲙ, etc. This morphological pattern, although not privileged of being selected in any literary dialect as an accepted conjunctive form (except non-biblical — Nitrian and Kellian — Bohairic)<sup>12</sup>, enjoyed the widest possible spread in non-literary usage actually.<sup>13</sup> The same observation can be, and has been made at literary texts from the late period of Coptic,<sup>14</sup> and these texts rather than documents, add an important aspect to our understanding of *coniunctivus multiformis*:<sup>15</sup>

<sup>11</sup> P.E. Kahle, *Bala'izah. Coptic Texts from Deir el-Bala'izah in Upper Egypt*, 1954, p. 160-163, §138: "Unusual forms of the conjunctive".

<sup>12</sup> For Nitrian Bohairic cf. A. Shisha-Halevy, "Bohairic", in *The Coptic Encyclopedia*, vol. 8, 1991, p. 53-60; A. Shisha-Halevy, *Topics in Coptic Syntax: Structural Studies in the Bohairic Dialect* (OLA 160), 2007 and E. Grossman, "Worknotes on the syntax of Nitrian Bohairic: A hitherto unnoticed circumstantial conversion", in N. Bosson & A. Boud'hors (eds.), *Actes du huitième congrès international d'études coptes, Paris, 28 juin – 3 juillet 2004* (OLA 163), 2007, vol. 2, p. 711-725. Eitan Grossman draws my attention to Kellian Bohairic.

<sup>13</sup> P.E. Kahle, *Bala'izah*, p. 161, concluded accordingly "Non-literary texts ... have preserved important evidence that even in Upper Egypt the original forms with τ and the alternative form of the third plural ⲡⲧⲟⲩ- were still known and used in the daily language of the people."

<sup>14</sup> G. Steindorff, *Lehrbuch*, p. 171, W.C. Till, *ZÄS* 77 (1942), p. 101-111 & W.C. Till, *Koptische Grammatik*, p. 162, P.E. Kahle, *Bala'izah*, p. 161: "These forms, with or without the η, are also sometimes found in literary manuscripts of a late period". References are usually made to W.C. Till's *Koptische Heiligen- und Märtyrerlegenden*, Nitrian Bohairic, and H. Junker's *Koptische Poesie des 10. Jahrhunderts*, 1908/11.

<sup>15</sup> I am very grateful to E. Grossman who shared his analysis of conjunctive attestations in H. Junker's *Koptische Poesie* with me.



	Region A (from Cairo to Fayyûm)	Region B (Fayyûm Oasis)	Region C (from Oxyrhynchus to Bâwît)	Region D (from Assiout to Abydos)	Region E (from Coptos to Armant)
1 sg.	(no 'unusual forms' detected)				
2 sg.m	TK	TEK	T(ε)K	T(ε)K	NTEK TK
2 sg.f	(no 'unusual forms' detected)				
3 sg.m		TEq	T(ε)q	T(ε)q	NT(ε)q Tq
3 sg.f	(no 'unusual forms' detected)				
1 pl.		TEN	T(ε)N	T(ε)N	TN
2 pl.			TETN(ε)	TETN(ε)	NTETN TETN
3 pl.		NTΘY TΘY	TΘY, TEY NCΘY CΘY	TΘY NCΘY CΘY	NTΘY, NTEY NCΘY C(ΘY)
pre- nominal		TE	TE	TE	

Table 2. Distribution of ‘Unusual forms of the conjunctive’  
in Documentary Coptic (according to P.E. Kahle, *Bala’izah*, p. 160-163)

Due to the fact that literary texts tend to be longer and accordingly richer of forms than single documentary items, it becomes more obvious by them that the co-occurrence of different conjunctive morphemes goes as far as to single texts, where nq- may co-occur with teq- (less often with nteq-) in apparently free variation, even in the same line, as was pointed out occasionally.<sup>16</sup>

While Nitrian Bohairic, late Sahidic poetry (or ‘folk literature’, as Erman put it)<sup>17</sup> and other late Coptic literary texts have been mentioned recurrently, there is another late Coptic sort of text that, although providing a particularly large body of evidence, has not played a role in the notion of non-standard conjunctive morphology so far: ‘scientific’, or, more narrowly speaking, recipe-shaped texts. Collections of recipes form a small but significant Coptic sub-corpus, transmitting technical instructions to such different puposes as medicine, technology, alchemy,

<sup>16</sup> W.C. Till, *ZÄS* 77 (1942), p. 110.  
<sup>17</sup> A. Erman, *Bruchstücke koptischer Volksliteratur*, 1897, a term that obviously carries misleading implications from early modern vernacular literatures.

and magic.<sup>18</sup> It goes without saying that Coptic recipes, typically structured by *sequential* strings of instructive, conditional and consecutive phrases, had a generic affinity to the use of conjunctives.

	Type	BL Or.MS. 3669(1)	P.Berl. P 8316	Bodl. MS.Copt. (P) a.1	Bodl. MS. Copt. (P) a.3	P.Bodl.MS. Copt. (P) a.2	P.Cairo 42573	P.Ryl. Copt. 106	P.Méd. Copt. 1FAO	Tokens
Total	4	3	3	3	3	2	2	3	3 (4?)	185
2 sg.m.	HT(ε)°	NTK(1?)							NTK(1)	2
	T(ε)°	TK(5)			TEK(1)		TEK(4)	TEK(3)	TEK(5)	18
	N°	NT(4), NK(2)	NK(41)	NT(1)			NT(1)		NT(30)	79
	o°		K(2)		K(1)			K(2)	EK(1?)	6
2 sg.f.	HTε°		HTε(4)							4
	T(ε)°									-
	N°									-
	o°									-
3 sg.m.	HT(ε)°		HTεq(1)							1
	T(ε)°	TEq(1), Tq(2)		TEq(4)	TEB(2), TEq(3)	TEB(1), TEq(2)		TEq(1)	TEq(8)	24
	N°		NB(3)	Nq(5)	Nq(1), NEq(1)			Nq(2)	Nq(7)	20
	o°			q(1)	q(1)	B(1)				1
3 sg.f.	HT(ε)°								HTε(1)	1
	T(ε)°	TE(1)							TE(2)	3
	N°		NK(1)	NK(3)	NK(2)					6
	o°									-
3 pl.c.	HT(ε)°		HTOY(2)					TOY(2)		2
	T(ε)°			TEY(3)	TOY(2)				TEY(1), TOY(1)	9
	N°								NCE(4)	4
	o°									-
Prenominal	HTε-	HTε(1)		HTε(1)					HTε(1)	3
	T(ε)-				TE(1)		TE(1)			2

Table 3. Conjunctive forms in late Coptic recipe texts

The eight texts presented in the following chapter provide a total of 185 conjunctive attestations, among them 2<sup>nd</sup> sg.m/f, 3<sup>rd</sup> sg.m/f, 3<sup>rd</sup> pl. and prenominal, however no 1<sup>st</sup> person and 2<sup>nd</sup> pl. instances. The four main

<sup>18</sup> For this corpus cf. T.S. Richter, "What Kind of Alchemy is Attested by Tenth-Century Coptic Manuscripts?", *Ambix. Journal of the Society for the History of Alchemy and Chemistry* 56/1 (2009), p. 23-35; T.S. Richter, "The master spoke: 'Take one of the 'sun' and one unit of *almulgam*'. Hitherto Unnoticed Coptic Papyrological Evidence for Early Arabic Alchemy" in: A.T. Schubert & P. Sijpesteijn, *Documents and the History of the Early Islamic World. 3<sup>d</sup> Conference of the International Society for Arabic Papyrology, Alexandria, 23-26 March 2006 (Islamic History and Civilization. Studies and Texts 111)*, 2015, p. 194-233, and T.S. Richter, "Neue koptische medizinische Rezepte", *ZÄS* 141 (2014), 155-195.

patterns of conjunctive morphology, NT(ε)⸈, T(ε)⸈, N⸈ and ⸈⸈,<sup>19</sup> are all attested in these texts, and none of them sticks with only one of those. Two texts, notably the ones providing the lowest total amount of conjunctive instances, make use of two morphological types, the other six texts use at least three of them (see Tab. 3 above).<sup>20</sup>

2. CONJUNCTIVE MORPHOLOGY IN LATE COPTIC RECIPES

2.1. Alchemical Recipes from British Library Or. MS. 3669(1),  
10<sup>th</sup> century

Types (tokens)	1 sg.	2 sg.m.	2 sg.f.	3 sg.m.	3 sg.f.	1 pl.	2 pl.	3 pl.	Prenom.
NTE⸈ (2)		NTK (1?)							NTTE (1)
T(ε)⸈ (9)		TK (5)		TEq (1), Tq (2)	Tc (1)				
N⸈ (6)		NT (4), NK (2)							

BL Or. MS. 3669(1), a 10th century parchment manuscript,<sup>21</sup> is the only Coptic alchemical text which has been published so far.<sup>22</sup> In terms of conjunctive morphology, three types are attested in it, NT(ε)⸈,<sup>23</sup> T(ε)⸈

<sup>19</sup> There is no more than one unambiguous instance for the morphological subtype NEK-, NEq-, NEc- which sporadically occurs in the late Sahidic poetry (H. Junker, *Koptische Poesie*), unless instances of NK- as opposed to NT- would be interpreted in terms of N(ε)K-. This option can be ruled out at least for *P.Berlin P 8316* where the position of supralinear dots and strokes (NK) speaks against N(ε)K.

<sup>20</sup> There are other late Coptic collections of recipes that exhibit just one morphological type of conjunctive, such as the medical papyrus *Louvre AF 12530* (ed. T.S. Richter, “Neue koptische medizinische Rezepte”) providing 36 instances of NT-, and *P.Berl. P 8116+8117 = BKU I,26* (10th/11th century) using TE⸈ forms exclusively: TEK- (6), TEb-/TEq- (3/2), TEc-(2), TQY- (1).

<sup>21</sup> A single quire, technically a quinternion, written in a confident, perhaps professional sloping uncial very similar to *P.Berlin P 9287*, one of H. Junker’s (*Koptische Poesie*) 10<sup>th</sup>-century late Coptic poetry manuscripts. For details about the manuscript cf. T.S. Richter, *Ambix. Journal* 56/1 (2009), p. 23-35; T.S. Richter, “Hitherto Unnoticed Coptic Papyrological Evidence”, and the forthcoming reedition of the text by T.S. Richter, *Coptic Alchemical Texts. Sources of Alchemy and Chemistry*. Sir Robert Mond Studies in the History of Early Chemistry. Ambix Supplements. Leeds: Maney Publishing (forthcoming).

<sup>22</sup> L. Stern, “Fragment eines koptischen Tractates über Alchimie”, *ZÄS* 23 (1885), p. 102-119.

<sup>23</sup> While the paradigmatic status of prenominal NTE- in a text exhibiting multiform conjunctives is etymologically unclear, it is here attributed to the NTE⸈ rather than the N⸈ type because 1) there is a possible case of pre-pronominal NTE⸈ in the text, and 2) the prenominal form occurs in a function that another time in the manuscript triggers TE⸈, instead of an N⸈ form. Still, this attribution is rather tentative and may be questioned.



and  $N\neq$ , with a clear dominance of the  $\tau(\epsilon)\neq$  form. In terms of function,<sup>24</sup> the conjunctive in its micro-coordinating capacity serves the expansion of imperative (exx. 1-6), aorist (exx. 121, 141) and terminative (ex. 152?), it is found as protasis (ex. 162) and apodosis (ex. 165) of a conditional construction, and in its sub-coordinating usage after verbs such as  $\sigma\gamma\omega\zeta$  (exx. 47-48),  $\kappa\omega$  (ex. 49) and others (ex. 67).

## 2.2. Alchemical Recipes from P.Bodl.MS.Copt. (P) a.1 ||

P.Bodl.MS.Copt. (P) a.3, 10<sup>th</sup> century

<i>Bodl.MS. Copt. (P) a.1</i>	1 sg.	2 sg.m.	2 sg.f.	3 sg.m.	3 sg.f.	1 pl.	2 pl.	3 pl.	Prenom.
$N\tau\epsilon\neq$ (1)									$N\tau\epsilon$ (1)
$\tau(\epsilon)\neq$ (7)				$\tau\epsilon q$ (4)				$\tau\epsilon y$ (3)	
$N\neq$ (9)		$N\Gamma$ (1)		$Nq$ (5)	$nc$ (3)				

<i>Bodl.MS. Copt. (P) a.3</i>	1 sg.	2 sg.m.	2 sg.f.	3 sg.m.	3 sg.f.	1 pl.	2 pl.	3 pl.	Prenom.
$\tau(\epsilon)\neq$ (9)		$\tau\epsilon k$ (1)		$\tau\epsilon b$ (2), $\tau\epsilon q$ (3)				$\tau\theta y$ (2)	$\tau\epsilon$ (1)
$N(\epsilon)\neq$ (4)				$Nq$ (1), $N\epsilon q$ (1)	$nc$ (2)				
$\theta\neq$ (2)		$\kappa$ (1)		$q$ (1)					

The unedited<sup>25</sup> Bodlian MSS. Copt. (P) a.1 and 3 are dealt with together here since they are witnesses of the same alchemical treatise. They do not provide, however, precisely the same text in a stemmatic sense, but differ slightly at several textual levels, including orthography, grammar, and lexicon, and seem to represent two different recensions.

Both manuscripts are different also in terms of conjunctive morphology. *P.Bodl.MS.Copt. (P) a.1* uses mainly forms of the  $\tau(\epsilon)\neq$  and  $N\neq$  types with a slight preference for the latter both in terms of tokens and the range of personal inflection, while the  $N\tau(\epsilon)\neq$  type is limited to the

<sup>24</sup> For a discussion of functional aspects, cf. below, §3.

<sup>25</sup> The Bodleian MSS.Copt. (P) a. 1, 2, and 3 were transcribed by W.E. Crum who occasionally quotes them in his *Coptic Dictionary*, and were firstly brought to a wider audience's knowledge by L.S.B. McCoull, "Coptic alchemy and craft technology in early islamic Egypt: the papyrological evidence", in M.J.S. Chiat (ed.), *The medieval mediterranean. Cross-cultural contacts (Medieval studies at Minnesota 3)*, 1988, p. 101-104. They were recently dealt with by T.S. Richter, *Ambix. Journal* 56/1 (2009), p. 23-35 and T.S. Richter, "Hitherto Unnoticed Coptic Papyrological Evidence" and will be edited by T.S. Richter, *Coptic Alchemical Texts*.

least noticeable, properly neutral case, the prenominal base.<sup>26</sup> The two main types  $\tau(\epsilon)\neq$  and  $N\neq$  co-occur in the 3rd sg.m., and there are examples actually showing both types expanding the same nexus.<sup>27</sup>

*P.Bodl.MS.Copt. a.3* has a more diverse conjunctive morphology, including the  $\tau(\epsilon)\neq$ ,  $N\neq$ ,  $N(\epsilon)\neq$  and  $\emptyset\neq$  type, although exhibiting a strong preference for the  $\tau(\epsilon)\neq$ -form.

Functionally, the conjunctive is used to expand third future (*exx.* 75-77),<sup>28</sup> aorist (*exx.* 122-132, 140), terminative (*exx.* 144-147, 149, 153-156), and the protasis of conditional constructions (*exx.* 157-159), and it sub-coordinates object clauses to the verb  $\kappa\omega$  (*exx.* 50-53).

### 2.3. Alchemical Recipes from *P.Bodl.MS.Copt. (P) a.2*, 10<sup>th</sup> century

Type (tokens)	1 sg.	2 sg.m.	2 sg.f.	3 sg.m.	3 sg.f.	1 pl.	2 pl.	3 pl.	Prenom.
$\tau(\epsilon)\neq$ (3)				$\tau\epsilon\kappa$ (1), $\tau\epsilon\eta$ (2)					
$\emptyset\neq$ (1)				$\epsilon$ (1)					

This likewise unedited<sup>29</sup> text does not yield a lot of instances. The manuscript has been written by the scribe<sup>30</sup> of *P.Bodl. MS.Copt. (P) a.3* and shares the preference for the  $\tau(\epsilon)\neq$  form and the sporadic use of the  $\emptyset\neq$  form. As in *Bodl.MSS.Copt. (P) a. 1* and 3, conjunctives are used to expand aorist (*ex.* 133) and terminative (*exx.* 148) in a micro-coordinating way and the verb  $\kappa\omega$  in a sub-coordinating way (*ex.* 54).

<sup>26</sup> That it is taken here an instance of the  $N\tau\epsilon\neq$  rather than the  $N\neq$  type is because the context where it occurs, the expansion of terminative, is typical for  $\tau\epsilon\neq$  rather than  $N\neq$  forms, although *P.Bodl.Copt.a.1* once uses an  $N\neq$  form actually. The decision may thus rightly be questioned.

<sup>27</sup> *Exx.* 155-156: *Bodl.MS.Copt. (P) a.1*, e 18-19:  $\eta\alpha\lambda\alpha\tau\epsilon\kappa\lambda\omega$   $\epsilon\kappa\mu\alpha\gamma$   $\epsilon\rho\omega\zeta$   $\epsilon\varphi\omega$   $\mu\epsilon\omega\mu\mu$   $\mu\eta\varphi\omega\lambda$   $\epsilon\beta\theta\lambda$   $\tau\epsilon\varphi\rho\mu\theta\omega\gamma$  'until you stop recognizing it as being a body and it dissolves and becomes liquid', for this variation cf. below, chapter 3.11. *Exx.* 76 & 77: *Bodl.MS.Copt. (P) a.3*, r<sup>o</sup> 72-73:  $\epsilon\rho\epsilon\pi\mu\omega\gamma\tau\epsilon$   $\tau\alpha\varsigma$   $\epsilon\pi\epsilon\gamma\eta\tau$   $\mu\eta\tau\alpha\varsigma$   $\eta\tau\alpha\mu\omega\mu$   $\epsilon\rho\omega\varsigma$  'May God give it into the master's heart, that he may let us know it' as opposed to *Bodl.MS.Copt. (P) a.3*, r<sup>o</sup> 77-78:  $\epsilon\rho\epsilon\pi\mu\omega\gamma\tau\epsilon$   $\tau\alpha\lambda[\epsilon]$   $\epsilon\pi\epsilon\varphi\epsilon\gamma\eta\tau$   $\tau\epsilon<\varphi>\tau\alpha\mu\omega\iota$   $\epsilon\tau\mu\epsilon\chi\alpha\eta\eta$   $\epsilon\mu\epsilon\sigma\phi\omega\varsigma$  'May God give it into his heart, and he may let me know the machine.'

<sup>28</sup> This analysis seems preferable to a conditional construction with protatic  $\epsilon\varphi\omega\tau\mu$  and the conjunctive in *apodosis*.

<sup>29</sup> Cf. above, n. 25.

<sup>30</sup> Cf. T.S. Richter, "A scribe, his bag of tricks, what it was for and where he got it. Scribal registers, skills and techniques in the Bodl. MSS.Copt. (P) a. 2 & 3", in J. Cromwell & E. Grossman (eds.), *Beyond Free Variation. Scribal Repertoires in Egypt from the Old Kingdom to the Early Islamic Period*. University College, Oxford September 14th – 16th 2009, forthcoming.

2.4. Purple Recipes from P.Berl. P 8316 = *BKU* I,21, 8<sup>th</sup>/9<sup>th</sup> century

Type (tokens)	1 sg.c.	2 sg.m.	2 sg.f.	3 sg.m.	3 sg.f.	1 pl.	2 pl.	3 pl.	Prenom.
NTε= (7)			NTE (4)	NTEq (1)				NT0Y (2)	
N= (45)		NK (41)		NB (3)	N̄c (1)				
0= (2)		K (2)							

P.Berl. P 8316 (= *BKU* I 21),<sup>31</sup> a recipe for purple substitutes, is peculiar in terms of conjunctive morphology, both for the sheer number of occurrences and for the range of morphological variation therein. Unlike the other texts, the spectrum of types is ‘uncontinuous’ so to speak: While it has the NT(ε)= form, it ‘skips’ the T(ε)= type, but does have both the N= and 0= forms. The NT(ε)= form and the 0= form have only a few although clear instances, while the N= form is overwhelmingly used. The most striking feature of the conjunctive morphology of *P.Berl. P 8316* is the fact that the text provides forms of the 2nd sg.f., not because a female is addressed in it, but because the gender contrast of the singular 2nd person seems to be neutralized (*exx.* 7-10). Functionally, conjunctives are chosen to expand the imperative in micro-coordinating (*exx.* 7-13) as well as sub-coordinating (*exx.* 68-71) way, aorist (*exx.* 80-120), terminative (*exx.* 142-143), and the protasis of a conditional (*ex.* 163).

2.5. Magical Recipes from P.Cairo 42573, 10<sup>th</sup>/11<sup>th</sup> century

Type (tokens)	1 sg.c.	2 sg.m.	2 sg.f.	3 sg.m.	3 sg.f.	1 pl.	2 pl.	3 pl.	Prenom.
T(ε)= (5)		TEK (4)							Tε (1)
N= (1)		NΓ (1)							

The magical recipes of P.Cairo 42573, a paper quire made of two *bifolia*,<sup>32</sup> contain only a handful of conjunctive instances, among them however some rather interesting ones. Morphologically, the text clearly

<sup>31</sup> This text was edited by A. Erman in *BKU* I, and has recently been dealt with by M. Stoyanova, “Written Sources on Coptic Dyeing Methods”, *Journal of Coptic Studies* 10 (2008), p. 99-112. For its non-standard use of statives cf. A. Boud’hors & A. Shisha-Halevy, “Two Remarkable Features of Coptic Syntax: (I) The Circumstantial Stative (II) The Neutric Copular Tε in Nominal Sentence Patterns”, *ZĀS* 139 (2012), p. 105-112.

<sup>32</sup> Ed. Ém. Chassinat, *Le manuscrit magique copte N° 42573 du Musée Égyptien du Caire* (BEC 4), 1955.



prefers the  $\tau(\epsilon)\neq$  form although the  $n\neq$  form is attested once. Functionally the conjunctive mostly serves the expansion of imperatives (exx. 14-16). In ex. 179 it expands the conditional conjunction  $\epsilon\omega\pi\epsilon$ , thus forming a protasis. In ex. 182 the conjunctive  $\tau\epsilon\kappa\sigma\gamma\omega\omega$  ‘you wish’ expands the noun  $\sigma\gamma\omega\mu\epsilon$  ‘a man’ in a quasi attributive way, its likely meaning being “A person *for whom you wish* (that everybody hates him)” A conjunctive as *that* form is chosen to encode the object clause of the verb  $\sigma\gamma\omega\omega$  (ex. 177).

## 2.6. Medical recipes from P.Ryl.Copt. 106, 10<sup>th</sup>/11<sup>th</sup> century

Types (tokens)	1 sg.	2 sg.m.	2 sg.f.	3 sg.m.	3 sg.f.	1 pl.	2 pl.	3 pl.	Prenom.
$\tau(\epsilon)\neq$ (6)		$\tau\epsilon\kappa$ (3)		$\tau\epsilon\eta$ (1)				$\tau\theta\gamma$ (2)	
$n\neq$ (2)				$n\eta$ (2)					
$\theta\neq$ (2)		$\kappa$ (2)							

The paper manuscript<sup>33</sup> *P.Ryl.Copt.* 106 contains a number of (not fully comprehensible) magico-medical recipes, which in terms of conjunctive morphology take a similar approach as is seen in *P.Bodl.MS.Copt.* a.3. It includes the  $\tau(\epsilon)\neq$ ,  $n\neq$ , and  $\theta\neq$  types, with a preference for the first one, and has  $\tau\theta\gamma$  instead of  $\tau\epsilon\gamma$  for 3rd pl. The conjunctive is used to expand imperative micro- (ex. 17, 39) and sub-coordinating (ex. 55-56), aorist (exx. 134-135) and causative imperative (ex. 171), it serves as protasis (ex. 164) and apodosis (ex. 166) of conditional constructions, and it occurs in an adnominal construction (ex. 183).

## 2.7. Medical Recipes from P.Méd.Copt.IFAO, 10<sup>th</sup> century

Types (tokens)	1 sg.c.	2 sg.m.	2 sg.f.	3 sg.m.	3 sg.f.	1 pl.c.	2 pl.c.	3 pl.c.	Pre-nom.
$n\tau\epsilon\neq$ (3)		$n\tau\epsilon\kappa$ (1)			$n\tau\epsilon\epsilon$ (1)				$n\tau\epsilon$ (1)
$\tau(\epsilon)\neq$ (17)		$\tau\epsilon\kappa$ (5)		$\tau\epsilon\eta$ (8)	$\tau\epsilon\epsilon$ (2)			$\tau\epsilon\gamma$ (1), $\tau\theta\gamma$ (1)	
$n\neq$ (41)		$n\eta$ (30)		$n\eta$ (7)				$n\epsilon\epsilon$ (4)	
$\theta\neq$ (1?)		$\epsilon\kappa$ (1?)							

<sup>33</sup> Ed. by Crum in *P.Ryl.Copt.*

### 3. FUNCTIONAL DISTRIBUTION OF MORPHOLOGICAL TYPES

<sup>37</sup> For functional aspects of the Coptic conjunctive, see A. Shisha-Halevy, *Coptic Grammatical Categories. Structural Studies in the Syntax of Shenoutean Coptic* (AnOr 53), 1986, p. 185-214; A. Shisha-Halevy, "Some reflections on the Egyptian conjunctive", in C. Fluck et al. (eds.), *Divitiae Aegyptii. Koptologische und verwandte Studien zu Ehren von Martin Krause*, 1995, p. 300-314; and A. Shisha-Halevy, *Topics in Coptic Syntax*, p. 158-160 and *passim*; cf. also L. Stern, *Koptische Grammatik*, p. 273-283, §§440-448, and B. Layton, *Coptic Grammar with chrestomathy and glossary. Sahidic Dialect*, <sup>2</sup>2011, p. 276-283, §350-356; C.H. Reintges, "A Descriptive Analysis of the Coptic Conjunctive Conjugation", in S. Völlmin, A. Amha et al. (eds.), *Converbs, Medial Verbs, Clause Chaining and Related Issues* (Frankfurter Afrikanistische Blätter 19), 2007, p. 163-184; C.H. Reintges, "Coordination, Converbs and Clause Chaining in Coptic. Typology and structural analysis", in I. Bril (ed.), *Clause Linking and Clause Hierarchy. Syntax and Pragmatics* (Studies in Language Companion Series 121), 2010, p. 203-265. On the pre-Coptic Egyptian Conjunctive, see W. Barta, "Zu ungewöhnlichen



keeping with well-established language practice. This is not to say that all of them can easily be found in 'standard' literary Sahidic. However none of them is *not* paralleled either in earlier Sahidic, or in Bohairic, or even in earlier Egyptian, namely in Demotic texts (cf. below).

There is no such evidence in our corpus as indicated by W.C. Till when he summarized on the use of conjunctive in late Coptic texts of the kind called by him, 'Coptic minor literature' ('Koptische Kleinliteratur').<sup>38</sup> "Zusammenfassend kann man also sagen, daß das  $\tau\epsilon\kappa$ -Präfix des Vulgärkoptischen meist als Konjunktiv empfunden und verwendet wird, *gelegentlich aber Bedeutungen haben kann, die dem Konjunktiv sonst nicht zukommen*".<sup>39</sup>

Given the likewise considerable range of morphological and functional diversity as exhibited by conjunctives in late Coptic recipes, the issue arises if there are recurrent matches between certain morphological types of conjunctive, and certain types of usage: Is the distribution of different morphological types of conjunctive overall, or partially ruled by regular correspondences, or is it widely the result of free variation?

Such correspondences have indeed been proposed for the distribution of the two 3rd plural forms of the conjunctive in (biblical) Bohairic, the 'true' Bohairic form  $\mathfrak{N}\tau\theta\gamma$ - and the 'sahidicizing' form  $\mathfrak{N}\epsilon\epsilon$ -. A. Shisha-

---

Verwendungsweisen des selbständigen Personalpronomens im Alt-, Mittel- und Neuägyptischen", *GM* 125 (1991), p. 7-14; J.F. Borghouts, "A New Approach to the Late Egyptian Conjunctive", *ZÄS* 106 (1979), p. 14-24; J. Černý, "On the Origin of the Late Egyptian Conjunctive", *JEA* 35 (1949), p. 25-30; L. Depuydt, *Conjunction, Contiguity, Contingency: On Relationships Between Events in the Egyptian and Coptic Verbal System*, 1993; A. Gardiner, "An Egyptian Split Infinitive and the Origin of the Coptic Conjunctive Tense", *JEA* 14 (1928), p. 86-96; B. Kroeber, *Die Neuägyptizismen vor der Amarnazeit. Studien zur Entwicklung der ägyptischen Sprache vom Mittleren zum Neuen Reich*, 1970; M. Lichtheim, "Notes on the Late Egyptian Conjunctive", in H.B. Rosén (Hrsg.), *Studies in Egyptology and Linguistics in Honour of H.J. Polotsky*, 1964, p. 1-8; S. Sauneron, "Quelques emplois particuliers du conjonctif", *BIFAO* 61 (1962), p. 59-67; J. Vergote, "Essai de comparaison entre les systèmes de conjugaison égyptiens et copte – le conjonctif", in *L'égyptologie en 1979: Axes prioritaires de recherches, Colloques internationaux du CNRS 595*, 1982, p. 77-80; P. Vernus, *RdE* 41 (1991), p. 153-208; A. Volten, "The Late Egyptian Conjunctive", in H.B. Rosén (ed.), *Studies in Egyptology and Linguistics in Honour of H.J. Polotsky*, 1964, p. 54-80; E. Wente, "The Late Egyptian Conjunctive as Past Continuative", *JNES* 21 (1969), p. 304-311; J. Winand, "À la croisée du temps, de l'aspect et du mode : le conjonctif en néo-égyptien", in O. Goldwasser & D. Sweeney (eds.), *Structuring Egyptian Syntax: A tribute to Sarah Israelit-Groll (LingAeg 9)*, 2001, p. 293-329.

<sup>38</sup> W.C. Till, *ZÄS* 77 (1942), p. 111.

<sup>39</sup> What W.C. Till puts as 'meanings' occasionally taken by conjunctives are such striking syntactic features as instances of conjunctives with statives as predicate. Caveats against the impetus to emend such occurrences: A. Boud'hors & A. Shisha-Halevy, *ZÄS* 139 (2012), p. 105-112.



Halevy observed at least a tendency towards their functional distribution according to different syntactic contexts.<sup>40</sup> “The general impression (which is, however, far from conclusive) is that *ncē-* is used in the continuative (subcategorizing) function ... while *ntōy-* occurs most frequently in the ‘subjunctive,’ ‘that’-function, as governed by verbs (including ‘impersonalia’) and conjunctions.”

To get a representative picture of the morphosyntactic behaviour of *coniunctivus multiformis*, it might be important to rule out impressionist conclusions by basing the argument on numerical evidence. This evidence, limited enough, is for the entire corpus like this:

Morphological types	NT(ε)≠	T(ε)≠	N≠	ø≠	Total
Tokens	13	56	109	7	185
Proportion	7,0%	30,3%	58,9%	3,8%	100%

Table 4. Token frequency, corpus ratio (exx. 1-185)

Seen from a statistical point of view, it seems unavoidable to leave the two ‘extreme’ morphological types *ntē≠* and *ø≠* more or less unregarded, as they provide no sufficient evidence to draw reliable conclusions<sup>41</sup> (unless their few instances would all coincide in one functional type, which is not the case). In practical terms, the raised issue narrows down to the question if there is any significant distribution of the types *tē≠* and *n≠*: Are there contexts for which our figures indicate a clear over- or under-representation of one of them, or is there an overall equal distribution regardless of different contexts and functional types? The answer to this question, to give it in advance, is: yes, and yes. There is a

<sup>40</sup> A. Shisha-Halevy, “Bohairic-Late Egyptian Diaglosses”, p. 324. L. Stern (*Koptische Grammatik*) had argued for a subtle semantic distinction of the two even though occurring in the same syntactic environs, cf. L. Stern *apud* A. Shisha-Halevy, *Topics in Coptic Syntax*, p. 292, obs. 7: “The familiar morphological puzzle of the two 3<sup>rd</sup>-plural forms of the Conjunctive, viz. *ntōy-* (‘regular’ in its paradigm) and *ncē-* (deviant, Sahidic-like yet equally Bohairic in distribution) was to my knowledge tackled only by L. Stern (*Koptische Grammatik*, p. 274 & 282), who was confident he could correlate the forms with respective different meanings: “*ntōy-* «wirkliche folge» ... «die form des objektiven modus der vorstellung», *ncē-* «beabsichtigte folge» – «die form des subjektiven modus der folge».”

<sup>41</sup> This is the reason why I also hesitate to rely too much on the observation that the occurrence of the *ntē≠* type is usually dependent on the co-occurrence of the *tē≠* type (exceptional in this regard: *P.Berl. P 8316*, cf. above, 2.4), while the *ø≠* type seems to be exclusively attested in those cases where the *n≠* type is prevalent, so that the morphological quartet seems to divide into a ‘left wing’ and a ‘right wing’ coalition, as it were.

wide range of free variation, of syntactic environs apparently allowing any morphological type, and there are some more restricted environments, obviously encouraging the choice of a particular morphological type.

### 3.1 Imperative expanded by conjunctive

a) *Micro-coordinating expansion of imperative*, including instances without (exx. 1-38) and with (exx. 39-44) additional conjunctions, is one of three contexts (the other ones being the expansion of aorist and of conditional protasis) in which the complete set of morphological types is attested. In terms of token frequency however, the  $\text{N}\neq$  type turns out to be the preferred type. Compared to the corpus ratio, it is clearly over-represented at the other three types' expense. The latter occur as free variations, as in exx. 1, 4, 5 and 6 ( $\text{TK-}$ ) from *BL Or. MS. 3669(1)* besides exx. 2-3 ( $\text{N}\neq$ -) from the same manuscript, exx. 14-15 ( $\text{TK-}$ ) from *P.Cairo 42573* besides ex. 16 ( $\text{N}\neq$ -) from the same manuscript, or exx. 18-29 ( $\text{N}\neq$ -) from *P.Méd.Copt.IFAO* besides ex. 30 ( $\text{N}\neq\text{TK-}$ ) and ex. 31 ( $\text{TK-}$ ) from the same manuscript.

Morphological types	$\text{NT}(\epsilon)\neq$	$\text{T}(\epsilon)\neq$	$\text{N}\neq$	$\emptyset\neq$	Total
Tokens	1	11	32	2	46
Percentage	2,1 %	24 %	69,5 %	4,3 %	100%

Table 5. Expansion of imperative, micro-coordination without and with inserted conjunctions (exx. 1-46)

b) *Sub-ordinating expansion of imperative*, a frequently instantiated context too (although not as numerous as micro-coordination), gives a strikingly changed picture. It is one of the contexts where the  $\text{TE}\neq$  type is significantly over-represented. Given that the  $\text{N}\neq\text{TE}\neq$  type, with two of twenty five instances slightly over-represented, has a close relation to the  $\text{TE}\neq$  type, while the  $\emptyset\neq$  type which is not attested at all relates to the  $\text{N}\neq$  type, 'left wing' forms represent almost three quarters of all attestations.

Certainly it must not be overlooked that this context includes a good deal of phraseologically shaped language, such as  $\kappa\alpha\alpha\zeta \text{ TEQW}\theta\theta\gamma\epsilon / \text{TEQK}\theta\theta$  "let it dry/cool down",<sup>42</sup> and  $\dagger \text{N}\alpha\zeta \text{ TEQ}\theta\gamma\omega\mu$  "give him to eat",

<sup>42</sup> Further examples from 'uni-conjunctive' texts: *P.Ryl.Copt. 110*  $\theta\gamma\alpha\zeta(\epsilon) \epsilon\theta\theta\lambda \text{ TEQK}\theta\theta$  'set it aside to cool', *P.Berlin P 8116a*, 12  $\text{TEQ}\theta\gamma\alpha\zeta\zeta \text{ TE}\theta\omega\lambda\gamma\epsilon\iota$  'and let it dry', *P.Berlin P 8116a*, 28,  $\text{TEK}\pi\alpha\rho\omega\zeta \epsilon\theta\lambda \text{ TE}\theta\omega\lambda\gamma\epsilon\iota$  'and spread it that it dries', *P.Berlin*

a fact that may disturb the figures. However as can be shown, these phrases were not as ossified as not to allow variation: Besides † ΝΑϚ ΤΕϚΟΥΩΜ (exx. 59, 62) there is † ΝΑϚ ΝϚΟΥΩΜ (exx. 60, 61) in the same manuscript, and in the ΚΑΑϚ ΤΕϚΟΥΟΥΕ / ΤΕϚΚΒΘ formula, conjunctive is often replaced by ΨΑΝΤΕ: Thus the form following the imperative was not simply triggered by phraseological automatism, but was the result of a real choice.

Morphological types	ΝΤ(ε)Ϛ	Τ(ε)Ϛ	ΝϚ	ΘϚ	Total
Tokens	2	16	7		25
Percentage	8 %	64 %	28 %		100%

Table 6. Expansion of imperative, sub-coordination (exx. 47-71)

### 3.2. Future I, II and III expanded by conjunctive

*Future I* expansion by conjunctive is instanciated no more than twice (ex. 72-73) and therefore irrelevant for further conclusions. It should however be mentioned that the two instances represent two different morphological types, although following each other in one sequence:

- (ex. 74) ΕΨΩΠΤΕ ΔΑΩΚΕ ΚΝΔΡ ΗΒ Ξ ΝΤΕΚΛΘ ΕΨΩΠΤΕ ΝΠΕΚΩΚΕ ΚΝΔΡ ΗΒ Ι ΕΙΕ ΠΕΖΟΥΘ ΕΝΔΙ ΤΕΚΕΙ ΕΖΡΔΙ (50)  
 ‘if it has delayed, it will last 60 d(ay)s and will stop, if it has not delayed, it will last 10 d(ay)s or more than these, and it will come up (finally).’<sup>43</sup>

There is only one instance of (injunctive) *Future II* expanded by conjunctive (ex. 74: ΝϚ type), and a triplet of clear instances of *Future III* expanded by conjunctive (exx. 75-77). Interestingly enough, this triplet again includes three different morphological types of conjunctive even though occurring in the very same phrase:

- (ex. 75) ΕΡΕΠΝΟΥΤΕ ΤΑΔΕ ΕΠΖΗΤ ΝΠΚΑΖ ΝϚΤΑΜΟΙ ΕΤΜΕΧΑΝΗ  
 ‘May God give it into the master’s heart, that he (the teacher) may explain me the machine’  
 (ex. 76) ΕΡΕΠΝΟΥΤΕ ΤΑΕ ΕΠΖΗΤ ΝΠΚΑΖ ϚΤΑΜΟΝ ΕΡΟΕ  
 ‘May God give it into the master’s heart, that he (the teacher) may explain it to us’

8116b, 17: ΠΑΡΨϚ ΕΒΔΛ ... ΤΟΥΨΑΥ[ΕΙ] ‘Spread them that they dry’, P.Berlin P 8116b, 26 ΠΑΡΨΕϚ ΕΒΔΛ ΤΕϚΨΑΥΕΙ ‘Spread it that it dries’.

<sup>43</sup> The same sequence: ΝΤΕϚ ... ΤΕϚ occurs in exx. 30-31 (Imperative expanded): ΧΙ ΝΔΚ ΗΓ ΗΟΙΒ ΖΗΟΥ\*ΕΖΕ ΝΚΑΜΕ\* ΝΤΕΚΤΕΚ ΝΒΩΖΕ ΤΕΚΠΙΡΙΧΕ ΜΟΟΥ ΖΗΠΕΥΗΟϚ ‘take 3 ticks from a black cow and pull the lashes out and spread their blood on them’.



- (ex. 77) ΕΡΕΠΝΟΥΤΕ ΤΑΔ[ε] ΕΠΕΛΖΗΤ ΤΕ<Q>ΤΑΙΘΙ ΕΤΙΕΧΑΝΗ  
 'May God give it into his heart, that he (the teacher) may explain me the machine.'

Thus the expansion of future seems to be a domain principally open to free variation.

### 3.3. Aorist expanded by conjunctive

The expansion of *aorist*, a well-established role of the conjunctive not only in Coptic,<sup>44</sup> is one of three contexts (the other ones being micro-coordinating expansion of imperative, cf. above, and expansion of conditional protasis, cf. below) in which the complete set of morphological types is attested.<sup>45</sup> Although the aorist in recipes is used in two different functions — exhortative mode in instructive parts, usually to be translated “you shall ...”, and apodotic conclusion in descriptions of the outcome, usually to be translated “it will ...”,<sup>46</sup> this semantic distinctions seems not to affect the morphological choice, at least as far as one can tell from a handful of instances. As in the case of imperative, also the aorist is a clear domain of the *N* type which takes up almost 90% of all instances,<sup>47</sup> thus leaving only a small floor to the principally possible range of variation.

Morphological types	NT(ε)≠	T(ε)≠	N≠	θ≠	Total
Tokens	1	5	54	2	62
Percentage	1,6 %	8,1 %	87,1 %	3,2 %	100%

Table 7. Aorist expanded by conjunctive (exx. 80-141)

<sup>44</sup> J.Fr. Quack (*Demotische Grammatik*) and J.H. Johnson (*The Demotic Verbal System*, p. 182) quote examples such as *P.Lond.-Leid.* iii,32: *hṛ phr=f n t3 wnw.t n rn=s mtw-p3 wyn hpr* “it conjures immediately and the light comes into being”.

<sup>45</sup> Even though the *NTε* paradigm is represented only in its less significant members, 2<sup>nd</sup> person sg.f. and pronominal *NTε*-, and the occurrence of the *Tε* type is affected by three (out of altogether five) attestations with the predicate *πυθω* ‘become liquid’, a lexical choice which seems to have a particular affinity to the *Tε* type, cf. below, 3.11.

<sup>46</sup> Both of these usages are already attested in Demotic recipes, cf. J.Fr. Quack, *Demotische Grammatik*, §12.6: “Der Aorist wird in Rezepten und verwandten Texten auch als Tempus für Anweisungen gebraucht und konkurriert in diesem Bereich mit dem Futur III. ... Ferner kann der Aorist das Resultat der vorangehenden Handlungenn anzeigen.”

<sup>47</sup> The obsession of *P.Berlin P.8316* with conjunctive strings governed by aorist, rather than imperative, additionally forcing up the figures which however might still be reliable in showing an overall tendency.

## 3.4. Terminative expanded by conjunctive

The expansion of *terminative* by conjunctive, again a well-settled usage,<sup>48</sup> seems to be a context evoking the  $\tau\epsilon$  type rather than other morphological choices, in this regard similar to the subordinate use of conjunctive following imperative (cf. above, 3.1) and the conjunctive used in the functional domain of *that* forms (cf. below).

Morphological types	$\overline{\text{NT}}(\epsilon)$	$\tau(\epsilon)$	$\text{N}$	$\emptyset$	Total
Tokens	1	10	4		15
Percentage	6,6 %	66,6 %	26,6%		100%

Table 8. Terminative expanded by conjunctive (exx. 142-156)

## 3.5. Protasis of conditional constructions expanded by conjunctive

The *protasis of conditional constructions*<sup>49</sup> (mostly the conditional conjugation, a couple of times the circumstantial aorist) is one of three contexts — the other ones being the micro-coordinating expansion of imperative and aorist (cf. above) — allowing the whole range of morphological variety. Given that the total amount is no more than eight attestations, nothing definitive about token frequency and patterns of distribution can be said beyond this general observation.

Morphological types	$\overline{\text{NT}}(\epsilon)$	$\tau(\epsilon)$	$\text{N}$	$\emptyset$	Total
Tokens	1	3	3	1	8
Percentage	12,5 %	37,5 %	37,5 %	12,5 %	100%

Table 9. Protasis of conditional constructions expanded by conjunctive (exx. 157-164)

<sup>48</sup> J.Fr. Quack (*Demotische Grammatik*) quotes from P.Loeb 13, x+16-18:  $\overline{s}^c\text{-}tw=y\ i\overline{y}\ n\text{-}im\ mtw=y\ gm\ p\overline{3}\ n\overline{t}i\ h\overline{p}r\ (r)\text{-}db\overline{3}\ .\overline{t}=w$  “until I’ll come there and find out what happens concerning them”; J.H. Johnson (*The Demotic Verbal System*, p. 185) quotes from P.Lond.-Leid. xxix,7-8:  $i\text{-}ir=k\ \overline{d}d.\overline{t}=f\ n\ sp\ 9\ \overline{s}^c\text{-}mtw\ p\overline{3}\ wyn\ \overline{c}^3w\ mtw\ Inpw\ i\overline{y}\ r\text{-}hn$  “You should say it 9 times until the light is great and Anubis comes in”.

<sup>49</sup> Demotic examples quotes by J.Fr. Quack (*Demotische Grammatik*) from Ankheshehony xv,21:  $i\overline{w}=w\ hb=k\ m\text{-}s\overline{3}\ \overline{s}^c\text{-}mtw=k\ gm\ sw\ m\text{-}ir$  in “If you are sent for chaff and you find wheat, don’t buy!” and P.Lond.-Leid. ii,1:  $i\overline{w}=f\ wn\ ir.\overline{t}=f\ mtw=f\ nw\ r\ p\overline{3}\ wyn$  “If he opens his eye and looks at the light”.

### 3.6. Conjunctive as apodosis in conditional construction

This function is attested in Coptic as well as in earlier (Demotic) Egyptian.<sup>50</sup> In our corpus it occurs only twice, both times with a morphological 'right-wing' type (ex. 165:  $\mathbf{N}\neq$ , ex. 166:  $\emptyset\neq$ ) of conjunctive. Given the negligible amount of instances, this must not mean anything. Taking the evidence of the next kind of context into account, there could however be made an argument for apodotic use of conjunctive encouraging 'right-wing' forms.

### 3.7. Conjunctive as "injunctive apodosis"

The "independent", "injunctive" function, although instances from Middle Egyptian<sup>51</sup> onwards are not that numerous, have always been striking grammarians for its apparent deviation from a basic trait of Egyptian conjunctive, its being "non-initial by nature".<sup>52</sup> Shisha-Halevy, in order to avoid allusions to "main clause modality", suggested to deal with such instances in terms of "injunctive apodosis", or "jussive sequelling".<sup>53</sup> Conjunctives as "injunctive apodosis" occur a couple of times in our corpus and, as the former context, are morphologically restricted to 'right-wing' types of conjunctive (exx. 167-169:  $\mathbf{N}\neq$ , ex. 170, if valid:  $\emptyset\neq$ ).

<sup>50</sup> Such as the example quoted by J.Fr. Quack (*Demotische Grammatik*) from *P.Heidelberg* 723, line 11: *in-n3.w sm hpr mtw=k mh* "When the harvest happens, you shall fully repay".

<sup>51</sup> A. Shisha-Halevy, "Some reflections on the Egyptian conjunctive", p. 311, n. 52 quotes *hn<sup>c</sup> ntk hr dit* "you shall give" from *P.Med.Berlin* 11,9 and compares "Coptic  $\mathbf{nr}\neq$  concluding medical recipes (Chassinat, *Pap. Médicale*)". Late Egyptian Instances of "independent conjunctive" are quoted by P. Vernus, *RdÉ* 41 (1991), p. 181; J.Fr. Quack (*Demotische Grammatik*) quotes Demotic examples from *P.Louvre E 3229 r<sup>o</sup>* vi,13: *w<sup>c</sup> hbs n m3y iw p3y=f s<sup>c</sup>l n hbs n ss-nsu iw=f w<sup>c</sup>b sp 2 mtw=k mh=f* "A new lamp the wick of which is of byssos, which is perfectly clean, and you fill it with true oil" and from *O.Tempeleide* 107,9f.: *p3 hw h<sup>w</sup>.t nti iw=f r-wnh[=f] mtw=f di.t s* "the rent which he will reveal, he shall pay it"; J.H. Johnson (*The Demotic Verbal System*, p. 188) quotes examples from *P.Lond.Leid.*, such as v,3: *w<sup>c</sup> ph-ntr iw=f dnt mtw=k sm r w<sup>c</sup>.t ry.t n kke ... mtw=k dit-w<sup>c</sup>b=s n mw* "A tested divination: You shall get to a dark room ... and clean it with water".

<sup>52</sup> A. Shisha-Halevy, *Coptic Grammatical Categories*, p. 187 and p. 206 + n. 64.

<sup>53</sup> A. Shisha-Halevy, "Some reflections on the Egyptian conjunctive", p. 311: "seemingly «independent» allocutive ... instructions expressed by the conjunctive are still sequeling textual rhemes."



## 3.8. Causative imperative expanded by conjunctive

A further construction within the range of injunctive language is the *causative imperative* expanded by conjunctive, although the least prominent in our Corpus (ex. 171:  $\tau\epsilon\neq$ ).<sup>54</sup>

## 3.9. Causative infinitive expanded by conjunctive

*Causative infinitive*, a competitor of conjunctive for *that* form slots, can be expanded by conjunctive<sup>55</sup> and occurs four times in our corpus this way (exx. 172-175:  $N\neq$ , ex. 176:  $\tau\epsilon\neq$ ). The different functions of the causative infinitive, verbal predicate versus *that* form, have no provable impact on the conjunctive morphology, although the only instance of  $\tau(\epsilon)\neq$  is attested in the latter case.

## 3.10. Conjunctive as 'that'-form and in adnominal use

a) *That-form governed by a verb of incomplete predication*: This case, already known from Demotic,<sup>56</sup> is fairly well attested in Bohairic,<sup>57</sup> in Sahidic however it seems to occur only sporadically.<sup>58</sup> Both of the two instances in our corpus (exx. 177 and 178) have the verb  $\sigma\gamma\omega\gamma$  followed by a conjunctive taking the  $\tau\epsilon\neq$  form. The phrase which is completed by

<sup>54</sup> Sahidic examples cf. G. Steindorff, *Lehrbuch*, p. 173 (§369); from Shenoute cf. A. Shisha-Halevy, *Coptic Grammatical Categories*, p. 193; a Bohairic example quoted by A. Mallon, *Grammaire Copte*, p. 123.

<sup>55</sup> J.Fr. Quack (*Demotische Grammatik*) quotes a Demotic example from *P.Lond.-Leid.* iii,31:  $i.ir=k\ wh3\ r\ di.t\ ir\ n3\ ntr.w\ iy\ n=k\ mtw\ p3\ hn\ phr\ n\ tkr$  "If you want to let the gods come to you, and that the vessel conjures up swiftly"; Sahidic instances e.g. G. Steindorff, *Lehrbuch*, p. 185 (§386); examples from Shenoute, cf. A. Shisha-Halevy, *Coptic Grammatical Categories*, p. 204-205; Bohairic examples quoted by A. Mallon, *Grammaire Copte*, p. 123.

<sup>56</sup> The Demotic example *P.Lond.-Leid.* iii,31 quoted above (n. 55) displays the sequence  $wh3$ -*causative infinitive-conjunctive*. For a similar use of conjunctive in Demotic cf. J.Fr. Quack (*Demotische Grammatik*): "Besonders häufig ist dieser Gebrauch nach dem Verb  $dbh$  „erbitten“, das mit Konjunktiv (als Ersatz eines Umstandssatzes des Futur III) konstruiert wird, z.B.  $tw=y\ dbh\ n.im=s\ mtw=tn\ di.t\ ini=w\ p3\ rmf\ n-rn=f$  „Ich bitte darum, daß ihr den besagten Mann bringen laßt“ pBM 10591 2,8f.", further examples from the same papyrus (ed. H. Thompson, *A family archive from Siût*, Oxford, 1924) are quoted by J.H. Johnson, *The Demotic Verbal System*, p. 189, E 535b-c and E 536.

<sup>57</sup> Cf. W.E. Crum, *CD* 500b; A. Mallon, *Grammaire Copte*, p. 120:  $\chi\sigma\gamma\omega\gamma\ \eta\tau\alpha\tau\alpha\sigma\theta\ \eta\pi\epsilon\kappa\omega\eta\eta\iota\ \epsilon\pi\iota\kappa\alpha\zeta\iota\ \epsilon\tau\alpha\kappa\iota\ \epsilon\beta\sigma\lambda\ \eta\sigma\eta\tau\iota$  "Tu veux que je ramène ton fils au pays d'où tu es venu ?", and A. Shisha-Halevy, *Topics in Coptic Syntax*, p. 460.

<sup>58</sup> Cf. e.g. *P.KRU* 92,43:  $\pi\epsilon\tau\sigma\gamma\omega\gamma\epsilon\ \mu\epsilon\eta\ \chi\eta\pi\alpha\rho\alpha\ \mu\iota\sigma\sigma\ \text{„whoever wants to violate it“}.$

conjunctive in *ex.* 178, is followed twice by causative infinitive in the same manuscript (*P.Méd.Copt.IFAO*).<sup>59</sup>

*b) That-form governed by εἰωπτε*: While this construction seems to be rather untypical for Sahidic,<sup>60</sup> it is already attested in Demotic (where its nature as a *that* form is even more obvious)<sup>61</sup> and well-established in Bohairic, both Biblical and Nitrian.<sup>62</sup> Our corpus provides just one instance (*ex.* 179), a τεε form.

*c) that-form governed by a noun*: The adnominal use of conjunctive, already mentioned above, was thoroughly discussed by Shisha-Halevy 1986. Our corpus exhibits two different kinds of adnominal conjunctive: One of them may be subsumed under *that*-forms. It is governed by a nominal nucleus that relates as a means or method for attaining the aim being denoted by the expanding conjunctive predication. This usage is already attested in Demotic magical instruction, as in an example quoted by J.H. Johnson (*The Demotic Verbal System*, p. 189) from *P.Lond.Leid.* iii,20-21: *phr.t n phr p<sup>c</sup> hn n-gtg mtw=w dd n=k w3h n md.t m3<sup>c</sup>.t* “A recipe for enchanting the vessel swiftly, that you are given answer truthfully”. In our corpus two instances are attested, both of them ‘left wing’ forms (*exx.* 180: *NTεε*, *ex.* 181: *TEε*).

*d) Adnominal conjunctive attributive to a noun*: The other type of adnominal conjunctive relates to a nominal nucleus in a properly attributive way. It is interesting to note that this type too has its roots as deep as in Demotic.<sup>63</sup> The two instances from our corpus (*exx.* 182 and 183) are both τεε forms.<sup>64</sup>

<sup>59</sup> *P.Méd.Copt.IFAO*, line 48 (= *ex.* 178) *εκορυω τεερωτ* ‘if you want it to grow’; *ibid.*, lines 197 and 220: *εκορυω (ε)τεερωτ κλαωε* ‘if you want them to grow well’.

<sup>60</sup> B. Layton (*Coptic Grammar*, §352) quotes an apparently rare example from biblical Sahidic (Mt 21,21): *εἰωπτε οὐκ ἔστιν ἀμφισβητεῖν* “If you have faith and do not doubt” with the conjunctive not immediately following the conjunction.

<sup>61</sup> Demotic instances of *iw=f hpr* > *εἰωπτε* + conjunctive are quoted by J.Fr. Quack from *P.Lond.-Leid.* iii,19: *iw=f hpr mtw-p3y=f msdr 2 md n3-nfr=f m-ss sp 2* “If his two ears speak, then it is very, very good”, and by J.H. Johnson (*The Demotic Verbal System*, p. 186) from *P.Lond.Leid.* ii,3: *iw=f hpr mtw=f wn ir.t=f mtw=f tm nw p3 wyn i.ir=k di.t ir=f htm ir.t=f* “If he opens his eyes and does not see the light, you should make him close his eyes”.

<sup>62</sup> Already W.E. Crum quoted a Bohairic example from H. Hyvernat’s edition of *Actes des Martyrs* (1886, p. 28, line 12): *εἰωπ ντοϋναϋ χε* “If you see that”; for further examples and discussion see A. Shisha-Halevy, *Topics in Coptic Syntax*, p. 96-97, 291 and 460.

<sup>63</sup> J.Fr. Quack (*Demotische Grammatik*) gives examples such as *Amasis und der Schiffer*, l. 11: *in wn rmi n-im=tn mtw=f rh ir w<sup>c</sup> sdj* “Gibt es jemanden unter euch, der

It may finally be stated that the partially overlapping functional domains of *that* forms and of adnominal use provide no other morphological types of conjunctive than 'left wing' forms:

<i>Morphological types</i>	NT(ε)≠	T(ε)≠	N≠	0≠	<i>Total</i>
<b>Tokens</b>	1	6			7
<b>Percentage</b>	14,3 %	85,7 %			100%

Table 10. Conjunctive as 'that' form and in adnominal use (exx. 177-183)

### 3.11. Conclusion

An analysis of the distribution of morphologically different instances of conjunctive according to functional varieties in late Coptic recipes suggests that their occurrence was not completely due to free variation, but may have partly been dependent on contextual criteria which affected the choice of a morphological type at a given place. Potential criteria, none of them of exclusive efficacy (so that their assumed force may occasionally interfere, and thereby reinforce or mitigate the preference for a certain morphological choice), include:

*Syntactic/semantic roles* of conjunctive, namely the *coordinating role*, supporting the N≠ type (as in the case of micro-coordinating expansion of imperative, 3.1.a, expansion of aorist, 3.3, and the apodotic use of conjunctive, 3.6 and 3.7), as opposed to the *subjunctive role* encouraging the Tε≠ type (as in the cases of sub-coordinating expansion of imperative, 3.1.b, *that*-forms and adnominal conjunctives, 3.10). This criterion goes well along the line drawn by Shisha-Halevy when he described the distribution of NTΘΥ- and NCTε- in Bohairic.<sup>65</sup> The same criterion may also apply to the expansion of terminative, 3.4, where the whole construction belongs to the realm of subordination, although the conjunctive relates in a coordinating

---

eine Geschichte wird vortragen können" and observes that this construction serves as an allosyntagm of (affirmative) circumstantial future that "im Demotischen ungern gebildet wird"; cf. W. Spiegelberg, *Demotische Grammatik*, §151, p. 72-73.

<sup>64</sup> Further evidence outside our corpus: *P.Ryl.Copt.* 104, section 4: ΘΥΨΑΗΛ ΤΕΚΤΑΥΘΥ ΝΕΛΔΥ ΕΧΧΔΤΒΕ ΕΨΛΟΚΕ 'A prayer which when thou speakest, there shall be no insect able to bite (thee)'; *P.Ryl.Copt.* 104, section 6: ΘΥΨΑΗΛ ΤΕΚΤΑΥΘΥ ΤΕΦΝΟΥΖΩ ΝΑΔΥ ΝΙΩ 'A prayer which when thou speakest, will protect from everything'

<sup>65</sup> A. Shisha-Halevy, "Bohairic-Late Egyptian Diaglosses", p. 324: "The general impression (which is, however, far from conclusive) is that NCTε- is used in the continuative (subcategorizing) function ... while NTΘΥ- occurs most frequently in the 'subjunctive,' 'that'-function, as governed by verbs (including 'impersonalia') and conjunctions."



further explain the over-representation of  $N\neq$  forms in the 2nd person (sg. m.), as opposed to the over-representation of  $\tau\epsilon\neq$  forms of the 3rd person (both sg. m. and pl.).

*Frequency*, namely *frequent patterns* (such as #imperative + conjunctive# and #aorist + conjunctive#) supporting  $N\neq$  forms, as opposed to *rare patterns* (such as #that-form + conjunctive#, #nominal nucleus + conjunctive#) encouraging  $\tau\epsilon\neq$  forms.

*A morphological rationale*: If not for syntactic/semantic reasons alone, the *terminative* may work as a generator of 'left wing' forms also due to its own morphology: Does it seem likely that the alliteration of  $\Psi\Delta(N)\tau\epsilon$  and  $(N)\tau\epsilon$  would have affected the morphological choice?

*A phonotactic rationale*: There is a single verbal expression,  $\rho\mu\theta\theta\gamma$  'become liquid', that whenever it occurs as predicate of a conjunctive in our corpus (exx. 123-124, 132, 144-148, 156), it takes a 'left wing' form, usually  $\tau\epsilon\neq$ . It is striking to find this behavior evidenced in a context generally favouring the  $N\neq$  type, such as *aorist* (exx. 123-124, 132), and by a manuscript preferring  $\tau\epsilon\neq$  forms such as *P.Bodl.MS.Copt. a.3* (exx. 124, 132) as well as by a manuscript not preferring  $\tau\epsilon\neq$  forms such as *P.Bodl.MS.Copt. a.1* (ex. 123):

- (ex. 123) Bodl.MS.Copt. (P) a.1, b 2-3

$\Psi\Delta\varphi\theta\omega\lambda\ \epsilon\theta\theta\lambda\ \tau\epsilon\varphi\rho\mu\theta\theta\gamma$

'it will dissolve and (finally) become liquid'

- (ex. 124) Bodl.MS.Copt. (P) a.3, r<sup>o</sup> 25-26

$\Psi\Delta\varphi\theta\omega\lambda\ \epsilon\theta\theta\lambda\ \tau\epsilon\theta\epsilon\rho\mu\theta\theta\gamma$

'it will dissolve and (finally) become liquid'

- (ex. 132) Bodl.MS.Copt. (P) a.3, r<sup>o</sup> 50

$\Psi\Delta\rho\epsilon\zeta\epsilon\rho\mu\epsilon\epsilon\ \theta\omega\lambda\ \epsilon\theta\theta\lambda\ \tau\epsilon\varphi\epsilon\rho\mu\theta\theta\gamma$

'the quicksilver will dissolve and (finally) become liquid'

While the occurrence of  $\tau\epsilon\neq$  is less conspicuous in expansion of *terminative* (exx. 144-148) :

- (ex. 144) Bodl.MS.Copt. (P) a.1, a 17

$\kappa\alpha\alpha\gamma\ \Psi\Delta\iota\tau\epsilon\gamma\theta\omega\lambda\ \epsilon\theta\theta\lambda\ \tau\epsilon\gamma\rho\mu\theta\theta\gamma$

'Leave them until they dissolve and (finally) become liquid'

- (ex. 145) Bodl.MS.Copt. (P) a.3, r<sup>o</sup> 12

$\kappa\alpha\alpha\gamma\ \Psi\Delta\iota\tau\theta\gamma\theta\omega\lambda\ \epsilon\theta\theta\lambda\ \tau\theta\gamma\rho\mu\theta\theta\gamma$

'Leave them until they dissolve and (finally) become liquid'

- (ex. 146) Bodl.MS.Copt. (P) a.1, b 5

$\Psi\Delta\iota\tau\epsilon\gamma\theta\omega\lambda\ \epsilon\theta\theta\lambda\ \tau\epsilon\gamma\rho\mu\theta\theta\gamma$

'until they dissolve and (finally) become liquid'

- (ex. 148) Bodl.MS.Copt. (P) a.2, line 61-62  
 ⲕⲁⲓⲛ ⲙⲁⲧⲉⲛⲉⲱⲗ ⲉⲃⲟⲗ ⲧⲉⲃⲉ<ⲡ>ⲙⲟⲟⲩ  
 'Leave it, until it dissolves and becomes liquid.'

(ex. 155-156) Bodl.MS.Copt. (P) a.1, e 18-19  
 ὡς ἄντε καὶ ἐκείνῳ ἐροῇ ἐφ' ἣν ἡσώμα ἡφθῶν ἐξῶς τεφθῆσθαι  
 'until you stop to recognize it being a body, and it dissolves and  
 (finally) becomes liquid.'

(ex. 129-130) Bodl.MS.Copt. (P) a.1, d 2-3  
 ΟΥΜΕΧΛΑΝΗ ... ΕΨΑΛΕΝΟΥΤ ΝΕΩΜΑ ΤΗΡΟΥ ΝΕΒΟΛΟΥ ΕΒΟΛ ΝΕΔΑΔΥ  
 ΠΛΟΥΟΥ  
 'a machine ... that grinds every metall and dissolves them and  
 liquifies them.'

- It seems that \* $\eta\mu\mu\theta\upsilon$  was not an accepted form, while  $\tau\epsilon\mu\mu\theta\upsilon$ , as well as  $\eta\kappa\alpha\alpha\upsilon$   $\eta\mu\theta\upsilon$  were accepted. It seems to me that in this case phonotactic reasons were at work.

#### 4.1. Imperative expanded by conjunctive

#### 4.1.1. Micro-coordinating expansion

a) *Without conjunction*

- (ex. 1) BL Or.MS. 3669(1), fol. VII<sup>r</sup>, (8)-10  
 ΠΛΤΤΟΥ ΖΗΜΟΥ : ΝΕ ΝΟΥΝΟΥ ... ΤΡΕ + ΟΥΨΙ ΝΝΟΥΒ ΕΧΟΥ  
 'cook them in water 3 nights ... and add one unit of gold to it'

- (ex. 2-3) BL Or.MS. 3669(1), fol. VII<sup>v</sup>, 3-6  
 ΘΟΥΚΕΡ ΜΠΕΝΙΠΕ ... ΝΓΠΑΚΤΟΥ ΖΙΟΥΑΛΚΑΡΟΟΡΕ ΝΟΜΕ : ΝΓΛΙ  
 ΜΜΟΥ ΕΒΟΛ  
 'bleach(?) the iron ... and boil them in a flask of clay, and bend(?)  
 them'
- (ex. 4) BL Or.MS. 3669(1), fol. VII<sup>v</sup>, 12-13  
 [ . . . ΘΥΥΠΙ ΤΕΡ ΝΖΟΜΕ : ΕΧΝ · Ι · ΤΚΘΨΜΕΥ ΖΙΝΕΖ  
 '[Add ... a u]nit (of one) *Dirham* of soda upon 10 (units), and mix  
 it on oil'
- (ex. 5-6) BL Or.MS. 3669(1), fol. VII<sup>v</sup>, 13-17  
 † ΘΥΥΠΙ ΝΖΑΤ ΕΧΘ · Ρ · ΝΤΕΡΖΑΜ : ... : ΤΚΠΑΚΤΟΥ ... ΤΡΠΑΖΤΟΥ Ε-  
 ΒΟΛ  
 'Add one unit silver to 100 *Dirham* ... and cook them ... and pour  
 them out'
- (ex. 7-13) P.Berl. P 8316, ro 16-25  
 ΘΕΤ-ΤΕΔΑΔΖΤ ΕΒΔΛ ... ΝΤΕΕΨΤ ΕΖΡΑΪ ... ΝΤΕΒΙΤΩ ΕΠΙΕΡΩ ...  
 ΝΤΕΠΑΡΘΕΒ <ΕΒ>ΔΛ ... ΝΤΕΣΕΚΤ-ΠΑΠΕΪ ΚΑΛΟC ΝΚΤΑΔΩ ΕΠΜΑ' ...  
 ΚΤΑΛΔ ΕΖΡΑΪ ... ΝΚΚΑΖΤΕ ΖΑΡΩ  
 'Remove the pot ... and hang it down ... and carry it to the river  
 ... and spread it out ... and grind the madder carefully and give it  
 to the water ... and add ... and heat below it.'
- (ex. 14-15) P.Cair. 42573 fol. 1 r<sup>o</sup>, 7-8  
 Θ<Ν>ΘΟΥ ΖΙΜΟΥ ΝΚΑΤΗΝΗ ΜΠΕΝΙΠΕ ΤΕΚΕΙΔΩ ΕΒΟΛ  
 ΤΕΚΖΕΑΖΩΛ ΠΡΩΜΕ  
 'crush them in water of iron chains and water them and sprinkle  
 the man'
- (ex. 16) P.Cair. 42573 fol. 2 r<sup>o</sup>, 15-18  
 ΧΙ ΝΑΚ ΝΟΥΚΕΡΜΕC ... ΝΓΤΑΔΩ ΕΖΡΑΙ ΖΝΖΕΝΧΕΒC ΝΨΕ  
 'take some ash ... give them into some charcoal'
- (ex. 17) P.Ryl.Copt. 106, 60  
 ΛΕΜΛΩΜ [...] ... ΚΑΤ ΘΥΛΑΔΩ ΕΖΡΑΙ ΖΙ...  
 'wrap [...] ... and throw something of it down upon ...'
- (ex. 18) P.Méd.Copt.IFAO, line 25-26  
 ΘΝΘΟΥ ΚΑΛΩC ... ΝΓΤΙ ΕΝΒΔΛ ΕΤΩ ΝΚΑΚΕ ΨΑΥΡΟΥΘΕΙΝ ΚΑΛΩC.  
 'grate it carefully ... and give it to the eyes being dark, they will  
 become perfectly light'
- (ex. 19) P.Méd.Copt.IFAO, line 156  
 ΘΝΘΟΥ ΝΓΤCΘΟΥ  
 'grind them and soak them'
- (ex. 20) P.Méd.Copt.IFAO, line 329  
 ΘΝΘΟΥ ΖΙ\*ΗΡΗΠ\* ΝΓΤCΘΟΥ  
 'grind them on wine and soak them'



- (ex. 21) P.Méd.Copt.IFAO, line 336  
 ΘΝΘΟΥ ΚΑΛΩC ΜΗΤΕΗ ΝΓ† ΕΡΘΟΥ ΨΑΥΛΘ  
 ‘grind it carefully with the urine and give (it) to them, they will stop’
- (ex. 22) P.Méd.Copt.IFAO, line 87  
 ΚΑΔΑΨ ΨΑΝΤΕΨΘΟΥΕ ΚΑΛΩC ΝΓΘΝΘΨ ΚΑΛΩC  
 ‘leave it until it is completely dry and grind it carefully’
- (ex. 23) P.Méd.Copt.IFAO, line 104-105  
 ΑΔΨ ΝΖΥΡΘΝ ΝΓ† ΕΡΘΟΥ  
 ‘make it a powder and give (it) to them’
- (ex. 24) P.Méd.Copt.IFAO, line 219  
 ΑΔΥ ΝΚΘ(ΛΑΥΡΙΘΝ) ΝΓΧΡΩ  
 ‘make them an eye ointment and administer’
- (ex. 25-26) P.Méd.Copt.IFAO, line 137-138  
 ΧΙ ΝΔΚ ΝΖΕΝCΦΘΗC ... ΝΓΛΔΖΜΟΥ ΖΗΗΠ ΝΓΔΔΥ ΝΚΑΤΑΠΑΔCΜΑ  
 ‘Take some sponges ... cook them in wine and make them a plaster’
- (ex. 27-28) P.Méd.Copt.IFAO, line 190-191  
 ΧΙ ΝΔΚ ... ΝΓΔΔΨ ΝΚΘ(ΛΑΥΡΙΘΝ) ΝΓΠΙΡΙΧΕ ΨΜΘΟΥ  
 ‘Take ... and make it an ointment and spread (it) on them’
- (ex. 29) P.Méd.Copt.IFAO, line 262  
 ΧΙ ΝΔΚ ... ΝΓΡΘΖΜΕΨ  
 ‘take ... and cook it’
- (ex. 30-31) P.Méd.Copt.IFAO, line 195-196  
 ΧΙ ΝΔΚ ΝΓ ΝCΙΒ ΖΗΘΟΥ\*ΕΖΕ ΝΚΔΜΕ\* ΝΤΕΚΤΕΚΨ ΝΒΩΖΕ ΤΕΚΠΙΡΙΧΕ  
 ΨΜΘΟΥ ΖΗΠΕΥCΗC  
 ‘take 3 ticks from a black cow and pull the lashes out and rub (περιχρίν) them with their blood’
- (ex. 32) P.Méd.Copt.IFAO, line 193  
 ΤΩΖΘΟΥ ... ΝΓΧΙ  
 ‘pierce them ... and take’
- (ex. 33) P.Méd.Copt.IFAO, line 249  
 ΠΑCΘΟΥ ΝΓΧΡΩ  
 ‘boil them and administer’
- (ex. 34) P.Méd.Copt.IFAO, line 265  
 ΡΩΧ\*ΘΥCΤΙΚΗΜΕ\* ΝΓΘΝΘΨ ΚΑΛΩC  
 ‘burn black caraway and grind it carefully’
- (ex. 35) P.Méd.Copt.IFAO, line 269  
 † ΘΥ\*ΤΟΕC ΝΨΙΑ\* ΕΧΩC ΝΓΜΟΡΕC  
 ‘give a [certain kind of] cloth on it and bind it’
- (ex. 36) P.Méd.Copt.IFAO, line 274  
 ΘΥΔΘΟΥ ΝΓΑΔΑΩC  
 ‘melt them and smear it’

- (ex. 37) P.Méd.Copt.IFAO, line 352  
 Θ[...] ἡμοῖς νῆστον νῆπιον ῥίψεαι  
 '[...] it in them and rub (περιχεῖν) his eyes'
- (ex. 38) P.Méd.Copt.IFAO, line 400-401  
 ὀυνωμὺν ζῆσιω νῆρ-τῇ ἐροῖς κνάρωπιθρε  
 'mix it with honey and give (it) to him; you will be amazed'

*b) With conjunction*

- (ex. 39) P.Ryl.Copt. 106, 25-27  
 ὡλτῷ ἡνεκσποτοῦ ἐπιωμετ ἐζοῦν ἐκω ἡμοῖς ἐκτε ἐζραι  
 ἄυνω τεκχι τεγζικη νεμνη  
 'Cut (?) it with your lips these three days while you drink it and spit it out, and you will take hearing(?) daily'
- (ex. 40-42) P.Méd.Copt.IFAO, line 54-55  
 κλῑ ἑνπρη ἡ ἱ ἡνῆωσ νῆ-θνοῦν ὀν νῆτῑῑ νῆζῡπον εἰε  
 νῆτῑῑ νῆω  
 'put it in the sun three days, afterwards grind them again and give it as powder, or make it a plug'
- (ex. 43) P.Méd.Copt.IFAO, line 143-144  
 τῑῑ ζῑχω πετωμε ἡνῆωσ τεκπατοῦ κῑλ(ω)  
 ὡντεγχνῑτῑ  
 'give them to the patient and afterwards cook them well until they combine'
- (ex. 44-46) P.Méd.Copt.IFAO, line 235-237  
 θνοῦν ζῑρηπ ... εἰε τεκτῑ πανικῑ ἐγχεῶλῑς νῆων ...  
 τεκκαπνῑζε ἡμοῖς ... εἰε νῆχι ὀυνμεζῑογζε  
 'grate them on wine ...or give the *anikam*(-vitriol) in wheat juice ... and you shall smoke it ...or take purslane'

4.1.2. Sub-coordinating expansion

*a) ὀυνω*

- (ex. 47) BL Or.MS. 3669(1), fol. VIII<sup>v</sup>, 7-8  
 εῑτε ἑλῑω ὡντῑῑῑῑ : ὀυνῑῑ ἐβῑ τῑ κῑ  
 'heat below it until it boils; put it away so that it cools down'
- (ex. 48) BL Or.MS. 3669(1), fol. VIII<sup>v</sup>, 8-10  
 στοῖ ὡν ἐκῑτ : ὡντῑῑῑῑ : ὀυνῑῑ ἐπεζῑτ τῑκῑ  
 'put it to the fire again until it boils; put it down so that it cools down'

*b) κῑ*

- (ex. 49) BL Or.MS. 3669(1), fol. X<sup>v</sup>, 10  
 κῑῑ τῑῑ  
 'let it dry'

- (ex. 50) Bodl.MS.Copt. (P) a.1, c 1  
 ΚΑΛΩ ΤΕΦΟΥΩΣ  
 'Let it precipitate'
- (ex. 51) Bodl.MS.Copt. (P) a.3, r<sup>o</sup> 51  
 ΚΑΩ ΤΕΦΟΥΩΣ  
 'Let it precipitate'
- (ex. 52) Bodl.MS.Copt. (P) a.1, c 5  
 ΚΑΛΩ ΤΕΦΩΘΟΥΕ  
 'Let it dry'
- (ex. 53) Bodl.MS.Copt. (P) a.3, r<sup>o</sup> 53  
 ΚΑΩ ΤΕΦΩΘΟΥΕ<sup>sic</sup>  
 'Let it dry'
- (ex. 54) Bodl.MS.Copt. (P) a.2, line 57  
 ΚΑΩ ΤΕΦΩΘΟΥΕ  
 'Let it dry'
- (ex. 55) P.Ryl.Copt. 106, 58  
 ΚΑΛΥ ΤΟΥΚΕΘ  
 'Let them cool down'
- (ex. 56) P.Ryl.Copt. 106,68-69  
 ΚΑΛΥ ... ΤΟΥΘΟΥΕ  
 'Let them dry'
- (ex. 57) P.Méd.Copt.IFAO, line 93-94  
 ΚΑΛΩ ΤΕΦΩΘΟΥΕ (frequently instead: ΚΑΛ... ΘΑΝΤΕ... ΘΟΥΕ)  
 'Let it dry'
- (ex. 58) P.Méd.Copt.IFAO, line 156  
 ΚΑΛΩ ΤΕΦΩΘΟΥΕ  
 'Let it dry'
- c) TI
- (ex. 59) P.Méd.Copt.IFAO, line 62  
 ΘΗΘΟΥ ΘΥΩΩ TI ΖΙΕΦΩ † ΝΑΩ ΤΕΦΟΥΩ[TI]  
 'grate them, mix (it) with honey, give him to eat'
- (ex. 60) P.Méd.Copt.IFAO, line 128  
 † ΝΑΩ ΝΦΟΥΩ TI ΝΕΙC†ΚΟC ΖΙΗΠ  
 'give him to eat sufficiently with wine'
- (ex. 61) P.Méd.Copt.IFAO, line 136  
 † ΝΑΩ ΝΦΟΥΩ TI ΦΝΑΟΥΧΑΙ  
 'give him to eat, (and) he will become well'
- (ex. 62) P.Méd.Copt.IFAO, line 420  
 † ΝΑΩ ΤΕΦΟΥΩ  
 'give him to eat'



- (ex. 63) P.Méd.Copt.IFAO, line 235-237  
 ΕΙΕ ΤΕΚΤΙ ΠΑΝΙΚΑΛΙ ΕΥΧΕΛΛΟC ΝCΟΥΩ ΤΕΦCΩC  
 or give the *anikam*(-vitriol) in wheat juice that he [the patient]  
 shall drink it'

*d) Other verbs*

- (ex. 64) P.Méd.Copt.IFAO, line 239  
 ΘΝΟC ΤΕΦCΩC  
 'grind it that he may drink it'
- (ex. 65) P.Méd.Copt.IFAO, line 414  
 ΟΥΩΨΥ CΙ ΕΦΩ ΝC(ΟΥ)ΩΜ ΝΕC+ΚΟC  
 'mix (them) with honey, that he may eat sufficiently'
- (ex. 66) P.Méd.Copt.IFAO, line 407  
 ΠΕCΤΟΥ ΝΟΟΥΨ ΝC(ΟΥ)ΩΜ ΝΕC+ΚΟC  
 'cook it to mush, that he may eat sufficiently'
- (ex. 67) BL Or.MS. 3669(1), fol. I<sup>v</sup>, 16-17  
 [ΨΙΤ]ΟΥ ΝΚΙΜΕ ΧΕ ΟΥΗΡ CΙΟΥ  
 'measure them to recognize how much are on them'
- (ex. 68) P.Berl. P 8316, ro 16-25  
 ΝΤΕΒΙΤC ΕΠΙΕΡΩ ΝΤΟΥΡΕCΡΩC ΕΒΑΛ  
 'and carry it to the river, that it will be washed out'
- (ex. 69) P.Berl. P 8316, ro 16-25  
 ΝΤΕΠΑΡΨΕC <ΕΒ>ΔΛ ΝΤΕΨΔΥΕΙ  
 'and spread it out, that it becomes dry'
- (ex. 70) P.Berl. P 8316, ro 37-45  
 ΝΚCΑCΤΕ CΑΡΑC ΝΒΕΡΕΡ  
 'and heat below so that it boils'
- (ex. 71) P.Berl. P 8316, vo 1-16  
 ΝΚΤΑΔΑ ΟΥΚΟΥΙ ΝΜΗ <ΝΚCΑCΤΕ CΑΡΑC> ΝΒΕΡΕΡ  
 'and take a little bit urine <and heat below> that it boils

## 4.2. Future I, II, & III expanded by conjunctive

### 4.2.1. Future I expanded by conjunctive

- (ex. 72-73) P.Méd.Copt.IFAO, line 56-57  
 ΕΨΩΠΕ ΔCΩCΕ CΝΑΡ Η C ΝΤΕCΛΟ ΕΨΩΠΕ ΝΠΕCΩCΕ CΝΑΡ Η Ι ΕΙ  
 ΠΕCΟΥΟ ΕΝΔΙ ΤΕCΕΙ ΕΖΡΑΙ  
 'if it has been delayed, it will last 60 days and (then) it will stop, if  
 it hasn't delayed, it will last 10 days or more than those, and (then)  
 it will come up.'

## 4.2.2. Future II expanded by conjunctive

(ex. 74) P.Méd.Copt.IFAO, line 186

ΕΚΔΕΛΕΖΩΛΟΥ ΕΧΝ ΠΜΟΥ ΕΤΚΗΥ ΝΓΤΑΔΥ ΕΡΟΥ

‘you shall pour them on the cold water and give it to him’

## 4.2.3. Future III expended by conjunctive

(ex. 75) Bodl.MS.Copt. (P) a.1, d 11-12

ΕΡΕΠΝΟΥΤΕ ΤΑΔ ΕΠΖΗΤ ΝΠΚΑΖ ΝΥΤΑΜΟΙ ΕΤΜΕΧΑΝΗ

‘May God give it into the master’s heart, that he may explain me the machine’

(ex. 76) Bodl.MS.Copt. (P) a.3, r<sup>o</sup> 72-73

ΕΡΕΠΝΟΥΤΕ ΤΑΣ ΕΠΖΗΤ ΝΠΚΑΖ ΥΤΑΜΟΝ ΕΡΟΥ

‘May God give it into the master’s heart, that he may explain it to us’

(ex. 77) Bodl.MS.Copt. (P) a.3, r<sup>o</sup> 77-78

ΕΡΕΠΝΟΥΤΕ ΤΑΔ[Υ] ΕΠΕΡΖΗΤ ΤΕ&lt;Υ&gt;ΤΑΜΟΙ ΕΤΜΕΧΑΝΗ ΕΝΕΣΟΦΟΥ

‘May God give it into his heart, that he (the teacher) may explain me the machine.’

(ex. 78-79) (?) P.Méd.Copt.IFAO, line 384-385

ΠΖΑΥ ... ΕΚΘΝΟΥ ΚΑΛΩΥ ... ΝΓΣΕΠ ΟΥΚΡΜΕ ΝΣΟΥΤ ΝΓΚΑΥ ΕΧΝΜΑ  
ΝΙΜ ΕΥΤΙΚΑΥ ΖΝΠΡΩΜΕ ΥΝΑΛΟ ΖΝΟΥΘΕΠΗ‘The excrement, you shall grind it carefully<sup>66</sup> ... and soak a lump of wool and put it on every distressing place at the man, (than) it will stop immediately’

## 4.3. Aorist expanded by conjunctive

## a) Subject maintained

(ex. 80-83) P.Berl. P 8316, ro 4-7

ΥΔΚΤΕΝΑΥ ΝΚΤΑΔΒ ... ΝΚΔΙ ΠΙΤΟΥ ... ΝΚΥΩΜ ΕΡΑΥ ... ΝΚΤΑΛΑΥ

‘You shall grind it and give it ... and give the item ... and wash it out ... and put it’

(ex. 84) P.Berl. P 8316, ro 11-13

ΥΔΚΘΑΠ ΟΥΚΟΥΥ ... ΝΚΜΑΡΥ

‘You shall take a bit... and bind it’

<sup>66</sup> Ém. Chassinat, *Un papyrus médical copte*, p. 305: “La fiente ... que tu tritures bien”, but the direct object construction speaks against adnominal circumstantial. Alternatively εκ- may be conjunctive in injunctive use (cf. below, n. 36), third future, or protatic εϕϰωτμ.





- (ex. 130-131) Bodl.MS.Copt. (P) a.3, r<sup>o</sup> 66  
 ὡς ἅπαντα τὰ μέταλλα καὶ τὰς οὐρανίας ἐκλύει καὶ ἐκλύει  
 'it grinds every metal and dissolves them and liquifies them.'
- (ex. 132) Bodl.MS.Copt. (P) a.3, r<sup>o</sup> 50  
 ὡς ἡ γρηναία διαλύει τὸν ὄρεον καὶ γίνεται υἱοῦς  
 'the quicksilver dissolves and becomes liquid'
- (ex. 133) Bodl.MS.Copt. (P) a.2, line 40-41  
 ὡς ὁ ὕδωρ τὸν ἄνθρωπον ἐκλύει καὶ γίνεται ἓν σῶμα  
 'it will melt and become one single body'
- (ex. 134-135) P.Ryl.Copt. 106, 35-36  
 ὡς ἂν φάγῃς ἐκ αὐτοῦ καὶ αὐτὸ ἔσται ... καὶ ἔσται ἡ ἀποψίρις  
 καὶ ἔσται ...  
 'you may eat of it and it will ... and it will stop the *apousir* and it will ...'
- (ex. 136) P.Méd.Copt.IFAO, line 129  
 ὡς ἡ φάρμακον ἐκλύει καὶ ἐκλύει  
 'it will heal them and make them dry out'
- (ex. 137) P.Méd.Copt.IFAO, line 223  
 ὡς ἂν ἴδῃς τὸν κρύον καὶ τὸν θερμὸν καὶ ἔσται ἡ ἀκοή  
 'they will stop to have a cold and they will hear again'
- (ex. 138) P.Méd.Copt.IFAO, line 288  
 ὡς ἂν καθαρίσῃς τὸν ὕδωρ καὶ ἔσται ἡ πληροῦς  
 'he will make them clean and fill them'
- (ex. 139) P.Méd.Copt.IFAO, line 411  
 ὡς ἂν ἴδῃς τὸν ὕδωρ καὶ ἔσται ἡ ἀκοή  
 'they will recede and become dry'

#### b) Subject maintenance disrupted

- (ex. 140) Bodl.MS.Copt. (P) a.1, g 13-16  
 ὡς ἂν φάγῃς ἐκ αὐτοῦ καὶ ἔσται ἡ ἀκοή ... καὶ ἔσται ἡ ἀκοή  
 'One unit of it will fall upon 7 (units) of the dress, and it will become white.'
- (ex. 141) BL Or.MS. 3669(1), fol. VII<sup>r</sup>, 9-10  
 ὡς ἂν φάγῃς τὸν ὕδωρ καὶ ἔσται ἡ ἀκοή  
 'the weight of copper will disappear, while the moon (*i.e.*, the silver) maintains'

### 4.4. Terminative expanded by conjunctive

#### a) Subject maintained

- (ex. 142) P.Berl. P 8316, ro 26  
 ὡς ἂν φάγῃς ἐκ αὐτοῦ καὶ ἔσται ἡ ἀκοή  
 'until it will be heated up and will be boiling'

- (ex. 143) P.Berl. P 8316, vo 13  
 ὡς ἂν τελεῖται καὶ ψυχρὸν  
 'until it becomes dry and cools down.'
- (ex. 144) Bodl.MS.Copt. (P) a.1, a 17  
 καὶ ἂν τελεῖται καὶ ἐντέλει  
 'Leave them until they dissolve and (finally) become liquid'
- (ex. 145) Bodl.MS.Copt. (P) a.3, r<sup>o</sup> 12  
 καὶ ἂν τελεῖται καὶ ἐντέλει  
 'Leave them until they dissolve and (finally) become liquid'
- (ex. 146) Bodl.MS.Copt. (P) a.1, b 5  
 ὡς ἂν τελεῖται καὶ ἐντέλει  
 'until they dissolve and (finally) become liquid'
- (ex. 147) Bodl.MS.Copt. (P) a.3, r<sup>o</sup> 27  
 ὡς ἂν τελεῖται καὶ ἐντέλει  
 'until they dissolve and (finally) become liquid'
- (ex. 148) Bodl.MS.Copt. (P) a.2, line 61-62  
 καὶ ὡς ἂν τελεῖται καὶ ἐντέλει  
 'Leave it, until it dissolves and becomes liquid.'
- (ex. 149) Bodl.MS.Copt. (P) a.3, r<sup>o</sup> 68-69  
 ὡς ἂν τελεῖται καὶ ἐντέλει καὶ ὡς ἂν  
 '...until you throw an ingredient on the iron and you soften it well'
- (ex. 150) Bodl.MS.Copt. (P) a.2, line 48:  
 ὡς ἂν τελεῖται καὶ ἐντέλει  
 'until it becomes solid and dry.'
- (ex. 151) P.Méd.Copt.IFAO, line 230  
 ὡς ἂν τελεῖται καὶ ἐντέλει  
 'until it becomes solid and dry'
- b) Subject maintenance disrupted*
- (ex. 152) BL Or.MS. 3669(1), fol. V<sup>r</sup>, 7  
 ὡς ἂν τελεῖται καὶ ἐντέλει [...] (?)  
 'until they become white, and you ...'
- (ex. 153) Bodl.MS.Copt. (P) a.1, c 3-5  
 ὡς ἂν τελεῖται καὶ ἐντέλει καὶ ὡς ἂν  
 'until the taste of the vinegar will cease on it and its water becomes clear.'
- (ex. 154) Bodl.MS.Copt. (P) a.3, r<sup>o</sup> 52-53  
 ὡς ἂν τελεῖται καὶ ἐντέλει καὶ ὡς ἂν  
 'until the taste of the vinegar will cease on it and its water becomes clear.'
- (ex. 155-156) Bodl.MS.Copt. (P) a.1, c 18-19  
 ὡς ἂν τελεῖται καὶ ἐντέλει καὶ ὡς ἂν  
 'until you cease to recognize it being a body and it dissolves and becomes liquid.'

## 4.5. Protasis in conditional construction expanded by conjunctive

a) *Conditionalis*

- (ex. 157) Bodl.MS.Copt. (P) a.1, b 9-11

ΕΚΨΛΝΦΘΛ[[.]Ι]ϩ ΕΒΘΛ ΝΨΘΜΤ ΝCΘΠ ΝΓΔΚΤ ΜΜΘϩ ΨΔϩΡΨΨ  
 ‘if you dissolve it three times **and you** solidify it, then it will be sufficient’

- (ex. 158) Bodl.MS.Copt. (P) a.3, r
- <sup>o</sup>
- 29-30

ΕΚΨΛΝΦΘΛϩ ΕΒΘΛ ΝΓ ΝCΘΠ ΚΔΚΗΤ ΜΜΘϩ ΨΔϩΡΨΨ  
 ‘if you dissolve it three times **and you** solidify it, then it will be sufficient’

- (ex. 159) Bodl.MS.Copt. (P) a.1, d 5-6

ΕΚΨΛΝΤΙ ΠΠΔΖΡΕ ΕΧΩC ΝCΡΔΚΡΕΚ ΨΔCΒΩΛ ΝCΩΜΔ ΤΗΡΟΥ  
 ‘if you add the ingredient to it **and it** becomes soft, then it will dissolve every body’

- (ex. 160) P.Méd.Copt.IFAO, line 192

ΕΚΨΛΝ\*ΛΘΥΗC\* ΝΓΧΡΨ ΜΜΘC ΕΝΒΔΛ ΕΤΩ ΝΒΘΥΖΕ ΜΕΥΡΩΤ  
 ΝΚΕCΘΠ  
 ‘if you ... [unclear], and you apply it to the eyelashes, they won’t grow again’

- (ex. 161) P.Méd.Copt.IFAO, line 226

ΕΚΨΛΝCΜΗΝΤϩ ΤΕΚΧΟΝΤϩ  
 ‘if you produce it and prove it’

b) *Other conditional constructions*

- (ex. 162) BL Or.MS. 3669(1), f. VII
- <sup>v</sup>
- , 6-9

ΝΨΔΚΠΘΕ ΝCΘΠ Ζ ΝΙΩΤ : ΕΧΘ ΘΥΤΕΡΖΔΜ ... : ΤΚΤΔΛΘ : ΘΥΤΕΡ  
 ΕΧΝ Ι  
 ‘if you decide to take 7 *habba* on one *Dirham* ... and you add one *Dirham* on 10’

- (ex. 163) P.Berl. P 8316, ro 14

ΝΨΔΥΒΔΛϩ ΕΒΔΛ ΝΤΘΥCΝΤϩ ΕΔΒCΕΠ-ΧΩCΕ  
 ‘if it will be dissolved and it will be found having taken the colour’

- (ex. 164) P.Ryl.Copt. 106, 60

ΕΚΕΘΥΩΜ ΝΘΥΔ ΔΛΜΔ<Τ>ΚΔΛ ΖΙΩΨΥ ΔΥ ΝΤΔΚΘΥΩΜ ΘΥΕΝΓΙΟΝ  
 ΤΕΚΖΙΨΔΝ ΕΝΕΨΔΝ ΚΩΦΕΙΛΕ ΖΔΡΘϩ  
 ‘thou shalt eat one *mithkal*-weight thereof and when (*Perf. II as temporal clause*) you hast eaten a jar (thereof), **and thou** ..., thou shalt have benefit therefrom’

## 4.6. Conjunctive as apodosis in conditional construction

- (ex. 165) BL Or.MS. 3669(1), f. II
- <sup>v</sup>
- , 21-22

ΕΚΨΛΝΔΔϩ ΜΠΕΚ[Η]ΤΘ Ε-ΒΘΛ ΝΓΜΕ ΧΕ ΔΦΕΡCΑΝ  
 ‘if you do it in front of yourself, you shall recognize if it has become beautiful’



(ex. 166) P.Ryl.Copt. 106, 60

ΕΚΕΘΥΩΜ ΝΟΥΔ ΔΛΑΜΔ<Τ>ΚΔΛ ΖΙΩΩΥ ΔΥ ΝΤΔΚΟΥΩΜ ΟΥΕΝΓΙΟΝ  
ΤΕΚΖΙΩΔΝ ΕΝΕΙΩΔΝ ΚΩΦΕΙΛΕ ΖΑΡΟΥ

‘thou shalt eat one *mithkal*-weight thereof and when you hast eaten  
a jar (thereof), and thou ..., **thou shalt** have benefit therefrom’

#### 4.7. Conjunctive as “injunctive apodosis”

(ex. 167) P.Méd.Copt.IFAO, line 48

ΤΑΠ Ν\*ΒΔΜΠΕ\* ΕΡΩ[Χ] ΖΙΝΕΖ-ΜΕ ΝΓΤ ΕΡΟΥ ΨΑΥΡΩΤ.

‘Burned ram horn and true oil: You shall give (it) to them (and)  
they will grow’

(ex. 168) P.Méd.Copt.IFAO, line 78

ΟΥΜΟΥ ΜΗΟΥΟΙΟΥ: ΟΥΕ ΝΒΔΜΠΕ ΖΙΕΡΩ(ΤΕ) Ν\*ΖΙΜΕ\* ΝΓΤΙ ΕΡΟΥ

‘(Against) water and star [*two eye diseases*]: ram gall and milk of  
a woman, you shall give (it) to them’

(ex. 169) P.Méd.Copt.IFAO, line 198

(list of ingredients) ΝΓΡΑΧΟΥ ΝΓ-ΘΝΟΥ

‘...: You shall burn them and grind them’

(ex. 170) (?) P.Méd.Copt.IFAO, line 384-385

ΠΖΔΣ ... ΕΚ-ΘΝΟΥ ΚΔΛΩΣ ... ΝΓΣΠ ΟΥΚΡΜΕ ΝΣΟΡΤ ΝΓΚΔΣ ΕΧΝΜΔ  
ΝΜ ΕΡΤΙΚΔΣ ΖΝΠΡΩΜΕ ΦΝΔΛΘ ΖΝΟΥΘΕΠΗ

‘The excrement, you shall grind it carefully<sup>67</sup> ... and soak a lump  
of wool and put it on every distressing place at the man, (than) it  
will stop immediately”

#### 4.8. Causative imperative expanded by conjunctive

(ex. 171) P.Ryl.Copt. 106, 21-22

ΜΑΡΕΦΟΟΥ ΖΙΤΒΗΤΕ ΤΕΦΟ [...]

‘he shall drink it on ...(?) and he shall drink ...’

#### 4.9. Causative infinitive expanded by conjunctive

##### a) Causative infinitive used as verbal predicate

(ex. 172) P.Méd.Copt.IFAO, line 170

ΟΥΖΥΡΟΝ ΨΑΥΤΡΕΝΒΔΛ ΡΟΥΟΕΙΝ ΝΣΕΝΔΥ ΕΒΟΛ ΖΝΠΟΥΕ ΝΚΟΥΙ ΜΝ  
ΝΝΟΘ

‘A powder that makes the eyes become light and let them recog-  
nize small and large things in the distance’

(ex. 173) P.Méd.Copt.IFAO, line 97

ΟΥΚΘΛΛ(ΥΡ)ΙΟΝ ΕΝΔΝΟΥΣ ΚΔΛΩΣ ΨΑΥΤΡΕΠΟΥΟΕΙΝ ΧΩΤΕ  
ΝΓΡΟΥΟΕΙΝ ΚΔΛΩΣ

‘A very good ointment: It will let the light go in, and that it  
becomes perfectly light’

<sup>67</sup> Cf. previous note.

- (ex. 174) P.Méd.Copt.IFAO, line 199

ⲱⲁⲓⲧⲣⲉⲩⲕⲁⲗⲉ ⲛⲉⲣⲃⲟⲩⲥⲉ

‘it will make them [*bald eyes*] smooth and that they get lashes’

*b) Causative infinitive used as ‘that’ form*

- (ex. 175) P.Méd.Copt.IFAO, line 353

ⲟⲩⲡⲁⲗⲣⲉ ⲉⲛⲉⲡⲗⲩⲥⲏ ⲛⲁⲥ ⲉⲧⲣⲉⲩⲗⲟ ⲛⲉⲕⲁⲗⲉ

‘A recipe for old sores, that they recede and become smooth’

- (ex. 176) P.Méd.Copt.IFAO, line 363

ⲟⲩⲕⲁⲩⲱ ⲉⲧⲣⲉⲩⲁⲱⲱⲣⲉ ⲉⲃⲟⲗ ⲉⲓ ⲧⲉⲩⲟⲩⲱⲛ

‘(For) a sore that it ceases or opens’

4.10 Conjunctive used as ‘that’ form and in adnominal use

*a) that form governed by verb of incomplete predication*

- (ex. 177) P.Cair. 42573 fol. 1 r
- <sup>o</sup>
- , 11-12

ⲧⲉⲕⲟⲩⲱⲱ ⲧⲉⲣⲱⲙⲉ ⲛⲓⲙ ⲙⲉⲥⲟⲩ

‘...you wish that everybody hates him’

- (ex. 178) P.Méd.Copt.IFAO, line 48

[ ... ] ⲉⲕⲟⲩⲱⲱ ⲧⲉⲥⲣⲱⲧ

‘... of which you want that it grows well’

*b) that-form governed by a conjunction*

- (ex. 179) P.Cair. 42573 fol. 2 r
- <sup>o</sup>
- , 6-7

ⲉⲱⲱⲡⲉ ⲧⲉⲕⲟⲩⲱⲱ ⲉⲙⲉ ⲁⲩⲉⲣⲟⲩⲥⲱⲃ ⲉⲩⲥⲓⲙⲉ

‘If it happens that you wish to know if they had it off with a woman’

*c) Adnominal: that-form*

- (ex. 180) P.Méd.Copt.IFAO, line 370

ⲟⲩⲁ ⲛⲧⲉⲛⲉⲩⲃⲁⲗ ⲣⲟⲩⲟⲩⲉⲓⲛ ⲕⲁⲗⲱⲥ

‘One, that his eyes become perfectly light’ (The interpretation suggested by Ém. Chassinat, *Un papyrus médical copte*, p. 300, n. 3: “Litt.: « un non ses yeux brillent bien », ne sont pas clairs, sont voilés. NTE est pour NTA ... AN” seems unlikely)

- (ex. 181) P.Méd.Copt.IFAO, line 396

ⲟⲩⲕⲟⲗⲗ(ⲩⲣ)ⲓⲟⲛ ⲉⲧⲃⲉ ⲛⲃⲁⲗ ⲉⲧⲟ ⲛⲥⲣⲉⲩⲙⲁ ⲧⲉⲩⲱⲃⲱ ⲛⲧⲉⲩⲛⲟⲩ

‘an ointment for rheumatic eyes, that they lessen at once’

*d) Adnominal: attributive*

- (ex. 182) P.Cair. 42573 fol. 1 r
- <sup>o</sup>
- , 11-12

ⲟⲩⲣⲱⲙⲉ ⲧⲉⲕⲟⲩⲱⲱ ⲧⲉⲣⲱⲙⲉ ⲛⲓⲙ ⲙⲉⲥⲟⲩ

‘A man you wish that everybody hates him’

(ex. 183) P.Ryl.Copt. 106,30

ΟΥΠΑΖΡ ΝΨΧΗΝ ΝΗΘΘ ΕΣΙΕ ΚΑΛΩΣ ... ΤΕΚΟΥΟΥΜΥ ΖΑΨΟΡΠ  
ΜΠΑΤΕΚ[ΟΥ]ΘΜ ΛΑΥ

'A very good garlic recipe ... which you shall eat in the morning  
before you eat anything'

#### 4.11. Function not recognizable for lack of context

(ex. 184) BL Or.MS. 3669(1), fol. I<sup>r</sup>, 16

[...] ΝΚΙΜΕ Χ[Ε] ΜΝΛΔΔΥ Ν[...]

'and you know that there is nothing of ...'

(ex. 185) BL Or.MS. 3669(1), fol. II<sup>v</sup>, 7

[...] ΝΓΣΕΚ ΠΛΘΓΟΣ [...]

'... and you draw the amount ...'