Chris H. Reintges

Centre National de la Recherche Scientifique, Paris

THE MORPHO-SYNTAX OF ALTERNATING COMPLEMENTIZERS IN COPTIC RELATIVE CLAUSE CONSTRUCTIONS

1. Introduction

It is with great pleasure that I contribute the present study on the morphosyntax of Coptic relative clauses in honor of Professor Andrzej Zaborski. Coptic, the most recent stage of the Ancient Egyptian language (Afro-Asiatic, from around the third to the fourteenth century AD) has an unusually complex system of specialized syntax and morphological marking for the formation of relative constructions of various kinds. The most central and most frequent constructional pattern is that of attributive relative clauses. Attributive relatives serve as clausal modifiers, which occur within a complex noun phrase. When viewed from a typological perspective, Coptic relative constructions are all postnominal and externally headed, whereby the nominal head of the relative clause or "pivot" appears external to it within the matrix clause.

¹ Coptic actually is a dialect cluster with at least six regional varieties, two of which have gained supra-regional importance: *Sahidic* (from Arabic *?aṣ-ṢaṢīd* 'Upper Egypt'), and *Bohairic* (from Arabic *?al-buharirā*, a province south-west of Alexandria), the vernacular of the Delta and Lower Egypt, the latter of which presently functions as the liturgical language of the Coptic Orthodox Church (see Layton 2000: 1–4 §§1–6 and Reintges 2004: 2–6 §0.1 for dialect variation and history). All examples of the present study are taken from Sahidic Coptic.

² In terms of holistic morphological typology, the Coptic language falls near the isolating pole of the continuum, with an almost one-to-one correspondence between functional categories and word-like particles. Grammatical particles can be subdivided into two major classes. On the one hand, there are verbal particles which express temporal, aspectual, modal and evidential categories as well as negative polarity. On the other hand, there are relativizing conjunctions or relative complementizers, which introduce relative constructions of various types and display a range of context-sensitive allomorphy. This is the topic of the present study. Yet, relative particles can also be used as a special morphology for signalling contrastive focus and emphasis in various

Relative clauses are morphologically marked as such by different relativizing conjunctions. They are analyzed here as relative complementizers because these elements are syntactic heads that introduce a special class of embedded clauses. They can therefore not be equated with relative pronouns such as English who, whom, what, German welcher, welche, welches, or Hausa wàndà, wàdà, wàdàndà 'who' (MASC./FEM./PL.), which are all phrasal categories. In coding the core relativization function of subordination and attribution, relativizing complementizers initiate a category change and convert the clauses that they select into adnominal clausal modifiers. The language has at its disposal five distinct complementizer particles e, ere, et, ən, and ənt. Each of them shows a morphosyntactic behavior distinct from the standard subordinating complementizer te 'that' and its derivatives.

Generally speaking, these relativizing particles have only nominal-categorial features and no other nominal inflectional features such as gender and number to formally mark a concord relation with the relative pivot. In this respect, they differ from the inflected attributive or possessive linkage morphemes, which mark nominalized clauses for concord and genitive case. A comparative syntactic analysis of such nominal linkers can be found in Dikken and Singhapreecha's (2004) comprehensive study. The complementizer allomorph ∂n appears to an exception to this rule—a point to which I will return later on in this article.

As we will see throughout this paper, these five relative complementizers are not free functional variants, but rather enter into paradigmatic relations with one another. To get started, consider the following example of a direct object relative. The objective role of the nominal head $p \rightarrow -ma$ 'the place' of the relative clause is recovered by the direct object pronoun 3^{rd} person masculine singular -f 'it', which is incorporated into the embedded verb $sot \rightarrow p$ 'to chose'. The relative complementizer $\rightarrow nt$ (glossed as REL) delineates the postnominal relative clause from the matrix clause and forms a cluster with the Perfect particle a. This tense—aspect particle appears immediately to the left of the embedded subject NP $p \rightarrow -t$ oeis' 'the Lord'. The resulting order of elements in relative clauses is the following one: relative complementizer $\rightarrow nt$ TAM particle a embedded subject embedded verb plus retained object pronoun $sot p \rightarrow -f$.

This example also shows that the relative clause tense may differ from the tense of the matrix clause. The surrounding matrix clause is specified for the Epistemic Future tense (FUT.EPIST) by means of the preverbal particle *na*, while the embedded relative clause is marked for past tense reference by the Perfect particle

non-relative environments (constituent questions, polarity (yes—no) questions, declarative focus sentences, predicative adjuncts (depictives), temporal adverb clauses, asymmetric coordination, and so forth). Coptic can be classified as a discourse-configurational language in which topic and focus prominence involve a departure from the canonical Subject—Verb—Object (SVO) order. Complementizer alternations in relative clauses also reflects the discourse-configurational syntax of the language.

a. Throughout this paper, brackets are used to demarcate the embedded relative clause (RC). Subscript indices are meant to indicate the anaphoric relation between the relative pivot and the coreferential pronoun within the modifying clause.³

(1) Direct object relative clause with relative complementizer ant

e–k	na	βɔk	<u>e-pə-ma</u> _i		
rel-2m.sg	FUT.EPIST	go.ABS	to-DEF.M.SC	-place	
$[_{ m RC}$ ənt	a	pə-t∫oeis	pe-k-nu≀te	sotp \mathbf{a} – $\mathbf{\underline{f}}_{\mathrm{i}}$	na–f]
REL PERF	DEF.M.SG-lord	DEF.M.SC	G-POSS.2M.SG-god choose	.PRON-3M.SG f	for-3m.sg
'You shall	go the place	which the	Lord, your God, has	s chosen for	himself.'
(Amélineau,	Shenoute I 2,	206:1-2)			

For now it should be observed that the relative complementizer *ant* serves not only as a clausal boundary marking device, but also as a syntactically active functional head that entertains a feature-sharing relation with other particles. To be more specific, the morphological alternations in the shape of the relative complementizer are sensitive either to the temporal, aspectual and modalevidential marking of the embedded relative clause or to the presence of a negative marker but—and this is a crucial point— is never sensitive to both layers of sentential meaning. In the case at hand, the tensed [+past] complementizer ant enters into a paradigmatic opposition with those relative complementizers that are semantically specified for a particular temporal and/or aspectual value as well as with those complementizers that have no such inherent values. To see this more clearly, consider the following example of a subject relative clause, which contains the preverbal future tense particle *na*. This kind of relative construction is in complementary distribution with the relative complementizer ant for the relatively straightforward reason that the Epistemic Future tense value of the preverbal particle cannot be matched with the inherent past tense value of the complementizer. To avoid mismatches in temporal value, the non-past [-PAST] complementizer et must be selected in its place. The same relative particle must be selected in affirmative relative clauses with present tense reference, implying

³ The following abbreviations are used in the glosses: 1, 2, 3 'First, second, third person'; ABS 'Absolute state stem'; CAUS 'Causative'; COMP 'Complementizer'; COP 'Pronominal copula'; DEF 'Definite article'; DEM 'Demonstrative article'; F 'Feminine gender'; REFLEX '(emphatic) Reflexive'; FUT.DEON 'Deontic Future tense/mood'; FUT.EPIST 'Epistemic Future tense'; HAB 'Habitual aspect'; IMP 'Imperative'; INDEF 'Indefinite article'; INF 'Infinitive'; LINK 'genitival Linker'; M 'Masculine gender'; NEG 'Negation'; NEG.HAB 'Negative Habitual aspect'; NEG.PERF 'Negative Perfect tense/aspect'; NEG.PERF 'Orenoun'; PREP 'Perfect tense/aspect'; PL 'Plural'; Poss 'Possessive pronoun'; PREP 'Prepositional object marker'; PRES 'Present tense'; PRET 'Preterit tense'; PRON 'Pronominal state stem'; Q 'question particle'; REL 'Relative complementizer particle'; SG 'Singular'; STAT 'Stative stem'. For the details of the textual sources of the examples see Reintges (2004: 597–600).

that the contrast between present and future time reference has been neutralized as far as the form of the relativizing complementizer is concerned.

(2) Subject relative clause with non-past tense complementizer et

e-u \cdot -k j \supset : \int ət e β ol <u>e-t-apophasis</u>; [$_{RC}$ et Δ ; na \int \supset :pe] REL(PRES)-3PL-look.ABS PCL at-DEF.F.SG-verdict REL EPIST.FUT happen.ABS 'When they look at verdict that is going to happen' (Amélineau, Shenoute I, 2, 178:14)

Relative clauses have within their internal structure an anaphoric element that recovers the internal grammatical role of the pivot. This anaphoric element may be encoded as a personal pronoun, which is retained in the NP position being relativized.⁴ An instance of pronoun retention in direct object relatives has been shown in example (1). As we have just seen in example (2), another outstanding feature of present and future subject relative clauses is that the preverbal subject slot is left vacant. As a result, the complementizer et is linearly adjacent to the subject position. Here I adopt the view that the relative complementizer itself is not located in the embedded subject position. Rather, the relativized subject is syntactically realized by a zero anaphora or relative "gap" (indicated by the triangle Δ).

In this study I do not intend to provide a fully-fledged review of the Coptic relativization system, the typology of the main constructional pattern and the interplay between relative clause syntax and restrictive, non-restrictive and appositive uses. For this purpose, the interested reader may want to consult Chapter 11 of my Sahidic Coptic grammar (Reintges 2004). My concern here is with the morphosyntactic conditions of complementizer alternations, which provide a window onto the internal syntax and the information packaging of Coptic relative clauses. The analysis presented here has a typological orientation and includes into its scope a comparison with the very similar system of complementizer alternations in Modern Irish (Goidelic/Insular Celtic, Indo-European).

2. Two different strategies of relativization

The language's two major relativization strategies are represented by converbal and genuine relative clauses. Converbal and genuine relatives differ

⁴ As Chomsky (1977: 81) notes, the anaphoric relation between the relative pivot and the coreferential pronoun within the modifying clause is not so much a matter of construal, but rather a matter of predication: relative constructions are "open" sentences, which must contain an element without independent reference—the retained pronoun. McCloskey (2006) provides a concise overview of the core facts and the most influential analyses of the divide between relative gapping and pronoun retention.

from each other in the range of pivots they may have. The semantic distribution of the two relativization strategies has traditionally been dealt with in terms of a definiteness opposition. However, as I have shown in the above cited work, the picture is complicated by the fact that specificity and obviation effects may play a role as well independently of the influence the speaker's choice to employ one or the other strategy. Standard examples of converbal relatives are shown in (3a–b). In providing information necessary to establish the identity of the indefinite NP *u-rɔ:me* 'a man' or to narrow down the set of potential referents of the universally quantified NP *rɔ:me nim* 'every man', converbal relatives can only be used as restrictive relative clauses.

(3) Converbal relatives with indefinite/quantified pivot NPs

- a. \exists n-t-he \underline{u} -r \exists \underline{r} \underline{u} -r \exists \underline{r} \underline{u} -r \exists \underline{r} \underline{r} \underline{r} \underline{u} -r \exists \underline{r} \underline{r} \underline{r} \underline{u} -r \underline{r} \underline{r} \underline{r} \underline{r} \underline{u} -r \underline{r} \underline{r}
- b. $\underline{\text{rDIme}}$ gar $\underline{\text{nim}}_i$ [$_{RC}$ e wənta- \underline{f}_i hah ən-nuIte] man PCL each REL HAVE-3M.SG many LINK-god 'For every man who has many gods' (Eudoxia 36:11)

The complementary pattern of relativization goes together with definite relative heads. In contrast to converbal relatives, genuine relative clauses may have restrictive as well as non-restrictive uses. In the latter case, they are used as appositive relative clauses. Appositive relatives can be construed of as parenthetical assertions that provide supplementary information about a contextually given referent. The restrictive and non-restrictive uses of genuine relative clauses are illustrated in examples (4a) and (4b), respectively.

(4) Genuine relative clauses with definite pivots

- a. $\underline{pa-houz_i}$ [RC a-ux t^fpo-k $a-hkxta-\underline{f_i}$] DEF.M.SG-day REL PERF-3PL deliver.PRON-2M.SG within-3M.SG 'The day on which you were born (lit. *they* gave birth to you)' (KHML II 30:13)
- b. pə-houː; əm-pə-hap [RC et ere pə-t^foeis na ti
 DEF.M.SG-day LINK-DEF.M.SG-lawrel REL DEF.M.SG-lord FUT.EPIST give.NOM
 hap ero—k]
 law to-2M.SG
 'The day of the judgment when the Lord will judge you' (Acts Andrew & Paul 202:128)

As the terminology suggests, a morphologically identical pattern can be found in various types of adverbially subordinate clauses. Predicative adjuncts (or depictives) (5a) and temporal adverbial clauses (5a) are two cases in point.

The interested readers may refer to my recent article "Coordination, converbs and clause-chaining in Coptic Egyptian" (Reintges 2010) for the syntactic diversity of converbal constructions in the language.

(5) Converbal relative clauses used in non-relative environments

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1a. k-nau
                                       e-i
                                               forne
                      ero-i
                     PREP-1SG REL (PRES)-1SG
                                               fall.sick.abs
(PRES) 2M.SG-see.ABS
'You find me sick.' (Mena, Miracles 27b:19-20)
     awa
             e-i
                              thezirei əmmo-ui
                                                                ne-ux-karpos
b.
                                                       mən
                              look.ABS PREP-3PL with
                                                        DEF.PL-POSS.3PL-fruit
and
             REL(PRES)-1SG
eis ftou!
             ən-[Erre
                              ſEm
                                      a-uː
                                                                əm-pə-we
             LINK-child
look four
                              small
                                       PERF-3PL come.ABS from-DEF.M.SG-distance
'And while I was looking at them (the trees) and their fruit, look four young fellows
approached from a distance.' (Coptic Martyrdoms 219:28–30)
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Genuine relative clauses, on the other hand, have a more restricted syntactic distribution and can generally only occur in relative environments.

3. The alternation between short and long forms of the converbal marker

Besides the distributional and interpretative differences just outlined, converbal relatives can also be distinguished from genuine relative clauses in terms of the relevant trigger for contextual allomorphy. In other words, the alternation between the short form e and the long form ere of the converbal marker is clearly prosodic in nature, since the latter form is actually a lengthened epenthesized variant of the base form e. As shown by the contrast between examples (6a) and (6b), the base form e is selected when an enclitic subject pronoun is follow, while the allomorph ere appears with a phrasal constituent—in our case, the embedded subject NP.

(6) Context-dependent allomorphy of the converbal relative particle

- a. hən <u>u-ma</u>; [RC e-f]; o ən-ʃarβa] in INDEF.SG REL (PRES)-3M.SG be.STAT in-scorching.heat 'In a place which (is) in (a state of) scorching heat' (Sahidic Vita of St. Pachomius 86:24–25)
- b. $\frac{\text{u-h} 2\beta_i}{\text{INDEF.SG-thing}}$ $\frac{\text{[}_{RC}}{\text{REL}}$ $\frac{\text{ere}}{\text{pe-nutte}}$ moste mmo- f_i] $\frac{\text{INDEF.SG-thing}}{\text{NBCET.SG-thing}}$ REL (PRES) DEF.M.SG-god hate.ABS PREP-3M.SG 'A thing which God hates' (Acts Andrew & Paul 202:126–127)

There is yet another syntactic context in which the shorter base form is grammatically required. This is when the converbal relative particle e surfaces

in the initial position of a particle cluster. The other elements in the cluster may be represented by pre-subject tense/aspect/mood (TAM) particles and, possibly, other complementizer elements, which are however, associated with contrastive focus and emphasis. This point will become relevant in my discussion of negated relative clauses (§4.2). Further note that enclitic subject pronouns appear in the final position of the particle clusters thus formed.

(7) Cluster formation in converbal relatives

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a. laau \frac{\partial n-\int En}{\sin t} \frac{nim_i}{\ln K} [RC e a-f t^{\int}O-\underline{u}_{i}] something Link-tree each REL PERF-3M.SG plant.PRON-3PL
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'Every (single) one of the trees that he (Apa Matthew) planted' (KHML II 18:23–24) $t^{\int} \partial po - \underline{u} \underline{x}_i$ eßol b. wən hen-siur, gar $\int_{RC} \mathbf{e}$ (PRES) be INDEF.PL-eunuch PCL REL REL PERF-3PL create.PRON-3PL PCL hən hExtə-s ən-te-u\-maau ən-tei-he l womb-poss.3f.sg LINK-DEF.F.SG-POSS.3PL-mother in-DEM.F.SG-way 'For there are eunuchs who were born (lit. they created them) from the womb of their mother in this condition' (Matthew 19:12)

The same morphological alternation can also be observed for the Preterit particle *ne* vs. *nere*, the affirmative Habitual aspect particle *fa* vs. *fare*, and its negative counterpart *me* vs. *mere*. By adding the meaningless suffix *-re* to the base form, the erstwhile monosyllabic particle is transformed into a disyllabic one. As a result, it can form a well-formed foot of its own and thus meets a prosodic minimality requirement on wordhood. Since *-re* epenthesis applies when cliticization of a pronoun or another particle is excluded, the attachment of the lengthened allomorph to the linearly adjacent phrasal constituent can best be described in terms of leaning or "liaison", to follow the lead of Klavans (1985). As might be expected, no such conditioned allomorphy applies to trisyllabic TAM particles such as the Terminative aspect particle *fante* ('UNTIL') and the Unexpected Negative Perfective particle *ampate* ('NOT YET'). These particles carry enough prosodic weight to form a separate intonational unit based on foot structure.⁵

⁵ Elsewhere (Reintges 2011: 557–562) I have drawn attention to the fact that the morphophonological conditioning of the short base form vs. the lengthened allomorph feeds into the formation of particle paradigms, with the lengthened form occupying two distinct person, number and gender cells: the long form *ere* is also used for the second person singular feminine (which is not discussed in this paper). Because of this, particle inflection can be identified as paradigmatically organized morphology, even though as a very impoverished one.

4. The binary [±PAST] distinction in affirmative relative clauses

In this section we turn to consider the far more complex system of morphologically conditioned complementizer alternations in genuine relative clauses. In relative contexts with affirmative polarity, the shape of the relative complementizer varies along with the temporal, aspectual and modal modification of the embedded clause. Complementizer allomorphy encodes a binary [± past] distinction, which reflects only partially the ternary present—past—future system of the language. In neutralizing the distinction between the present and the future tense, the relative complementizer *et* carries a [¬PAST] temporal specification. It enters into a paradigmatic relation with the corresponding [+PAST] complementizer *ant*. The [±PAST] distinction is illustrated by the contrast between examples (8a–b) and (8c).

(8) The binary [±PAST] distinction in alternating relative complementizers

Morphologically conditioned complementizer allomorphy is also sensitive to aspectual distinctions and this is when the picture becomes murky. The Preterit past particle *ne* is a case in point. I have proposed in my Coptic grammar (Reintges 2004: 257–258 § 7.3.1, 271–274 §7.3.5) that the particle *ne* establishes a secondary deictic reference point in the past, with respect to which temporal interpretations are made. When it is used as a simple tense (or past-in-the-past), it also conveys a marked aspectual value [+IMPERFECTIVE]. What concerns us here is the fact that the tense/aspect particle *ne* is in complimentary distribution with the relative complementizer *ont*, even though the two particles convey past tense reference. This strongly suggests that the mismatch arises because of incompatible aspectual features. In other words, the complementizer *ont* has as part of its feature matrix a [-IMPERFECTIVE] aspectual value. Since the Preterit particle *ne* is inherently specified for past tense reference, it cannot be combined

with the [-PAST] complementizer et either. The way out is to select the converbal relative particle e, which has no such inherent temporal or aspectual features.

(9) Selection of the converbal marker in Preterit relative clauses

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kata \underline{\text{t-he}}_{i} [_{RC} e ne-f o \exists mmo-\underline{s}_{i}] according.to DEF.F.SG-manner REL PRET-3M.SG be.STAT in-3F.SG 'According to the manner that it (the sun) is' (Zenobius 200:27)
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Intriguingly, tense- and aspect-sensitive complementizer alternations are fraught with idiosyncrasy and variation particular to individual items. The Habitual aspect particle fa is a particularly illustrative case in point, as it goes together with three distinct complementizer allomorphs. These are (i) the converbal relative particle e, which functions as the default relative complementizer, (ii) the attributive and/or possessive linkage marker ∂n , and (iii) the paired relative complementizers et and e (see also Layton 2000: 324–325 §§399–401). An example of each complementizer allomorph is presented in (10a–c).

(10) The three distinct complementizers of habitual relative clauses

gar ən-te-BrEik^je, a. $[_{RC}\mathbf{e}$ $\int a-\underline{s}$ woein in-def.f.sg-manner PCL LINK-def.f.sg-lightning REL HAB-3f.sg light do.nom tə-pe] ha under DEF.F.SG-sky 'For just like the lightning, which lights up under the sky' (Luke 17:24) ne- $\int at^{f}e_{i} \left[_{RC} an \right]$ fare p_θ-petwaaβ Apa PamB21 b. t^foo-ux: na-s 1 and DEF.PL-word DEF.M.SG-holy REL HAB Apa Pambo say.pron-3pl to-3F.SG 'The words which the holy Apa Pambo said to her' (Hilaria 6:17–18) hən te-n-sarks: \int_{RC} et fa-s; tako 1 C. e DEF.F.SG-POSS.1PL-flesh HAB-3F.SG perish.ABS in REL REL 'In our flesh which is perishable' (II Corinthian 4:11)

It may very well be the case that the non-specific interpretation of the definite antecedent te– $\beta r \mathcal{E}:k^j e$ 'the lightning' is the relevant factor motivating the selection of the converbal relative particle e. The availability of the nominal linkage marker ∂n as a relativizer is a marked exception to the rule that postnominal relative clauses cannot be assigned genitive case by means of a relativizing conjunction. I will leave it to future research to see whether Habitual aspect turns the clause it modifies into a more nominal category.

As I have shown in a recent paper (Reintges 2011), the string <u>ete</u> that appears at the left edge of various types of relative clauses ought to be decomposed into a sequence of the complementizer et and the converbal particle e.

This constructional feature is referred to as "complementizer stacking" in the aforementioned paper. When viewed from this perspective, the string <u>ete</u> neither is the "full form" of the complementizer *et* nor is it a "prenominal state" form as claimed in traditional approaches to Coptic grammar (for representative view see Steindorff 1904: 225–227 §§ 522–527; Till 1960: 228 §466; Polotsky 1987: 52–53 §13; Layton 2000: 322 §396, 324 §399). It should be kept in mind though that relative complementizer *et* occupies the initial position in stacked complementizer structures, whereas the converbal relative particle *e* appears in cluster-second position. This is strong evidence that the converbal particle is not used here as a subordinator, but rather serves as a designated focus marker. Negated relative clauses are a showcase for the focus-sensitive role of this special relativizing device. Before elaborating on the relation between focus and negation in relative clauses, I will briefly consider the strikingly similar pattern of tensed relative complementizers in Modern Irish.

5. Complementizer alternations in Modern Irish relative clauses

The morphosyntactic heterogeneity of complementizers is not a parochial, language-specific feature of Coptic relative clause formation. A [\pm past] distinction has also been observed for tensed relative complementizers in Modern Irish. In this language, the past tense form ar of the so-called indirect relative particle aN (which introduces resumptive relatives) is derived from the affixation of the past tense marker -r to the relativizing conjunction a. The interested readers may refer to McCloskey (2001: 73–75 and footnote 6) for the details of the analysis.

(11) Tensed relative complementizers in Modern Irish

<u>an</u>	ghirseach _i	_{RC} ar	ghoid	na síogaí	<u>í</u>]		
the	girl	COMP-[+PAST]	stole	the fairies	her		
'The girl that the fairies stole away' (Adapted from McCloskey 2001: 67 (3))							

There are, however, important differences between the otherwise very similar relativization system of the two languages. To begin with, the [+PAST] complementizer *ant* in Coptic is mono-morphemic and can therefore not be decomposed into a relativizing conjunction and a past tense suffix, as in the case of the past complementizer *ar* in Modern Irish. What is more, relativizing particles in this language cannot co-occur with any other element that can be analyzed as a complementizer, as pointed out by McCloskey (2001: 73). The situation is fundamentally different with Coptic converbal and genuine relative

⁶ The indirect relative particle is rendered as *a*N in generative studies on Modern Irish, since this particle induces nasalization on the initial segment of the following verb. The so-called direct relative particle (which introduces relative clauses containing a gap) is rendered as *a*L, since it induces lenition on the initial segment of the following verb.

clause constructions, in which a combination of two relativizing particles is permitted or even grammatically required. As we will see next, this is the case with relative clauses marked for negative polarity.

6. Complementizer stacking in negated relative clauses

The binary [±PAST] distinction that can be observed for affirmative relative clauses does not carry over to relative clauses with negative polarity. Such negated relatives are uniformedly marked by the pairing of the relative complementizer *et* and the converbal relative particle *e*. Complementizer stacking applies quasi-algorithmically in this context regardless of which negation pattern is used in the embedded clause. In other words, negative polarity neutralizes the tense- and aspect-sensitive complementizer alternations as just outlined.

A salient feature of the Coptic negation system is the diversity of negative markers. To express sentential negation in present and epistemic future contexts, the language employs a double negation pattern, comprising the clause-initial negative particle no and the clause-internal negation adverb an 'not'. In other contexts, the language resorts to a set of specialized verbal tenses, in which negative polarity is fused with a given temporal, aspectual or modal category into a single unsegmentable morph. There are four such negative tenses: the Negative Perfective *ampe*, the Negative Deontic Future *nne*, the Negative Habitual *me/mere*, and the Unexpected Negative Perfective *ampate*. Even though these tenses start out with an labial or velar nasal consonant, this element cannot be identified synchronically as separate negative marker, since the rest of the base does not bear any derivational relationship with the corresponding affirmative tense. This point is highlighted in my Coptic grammar (Reintges 2004: 347–348 §9.4). Negated relative clauses are used very infrequently in comparison with relative clauses of positive polarity. To nevertheless demonstrate the pervasiveness of complementizer stacking, more examples are presented in (12a–f) than is customary.

(12) Complementizer stacking in negated relative clauses

a. Negative Present tense

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<u>nə-hethos</u>; [RC et e nə <u>se</u>;—pEt an ənsa tə-dikaiosynE: ] DEF.PL-gentile REL REL NEG (PRES)3PL-run.STAT not after DEF.F.SG-justice 'The gentiles who did not pursue justice' (Romans 9:30)
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b. Negative Epistemic Future tense

^{&#}x27;Every tree which will not give good fruit' (Luke 3:9)

c. Negative Perfect									
<u>nai</u> , [_{RC}	et	e	mpe	hoine	mate	əmmo– <u>u</u> ∑ _i]			
DEM.PL	REL	REL	NEG.PEF	RF some	obtain.ABS	PREP-3PL			
'These (thir	'These (things) which some have not obtained' (I Timothy 1:6)								
d. Negate	d Preteri	t tense							
p- [_{RC}	et	e	ne-f		∫oop	an]			
DEF.M.SG	REL	REL	PRET-3N	M.SG	happen.sta	T not			
'That which	n was no	n-existent	' (Amélir	neau, Shei	noute II 3, 41	18:7)			
e. Negati	ve Habit	ual							
<u>pə-nu≀te</u> i	pai	[_{RC} et e	mere	laau ∫⊃	rpe et∫əntə-f			
DEF.M.SG-god DEM.M.SG REL REL NEG.HAB anything become.ABS without-3M.SG									
'God, he without whom nothings happens' (Zenobius 202:3)									
f. Unexp	f. Unexpected Negative Perfective								
won	gar	$\underline{\text{nim}}_{\text{i}}$	$[_{RC}$	et e	mpat-uː	sw ɔ ːnə-g			
one	PCL	each	REL	REL NE	G.PERF-3PL	know.pron-2m.sg			
mən ne-k-magia]									
and DEF.PL-POSS.2M.SG-magic									
'Each one who has not yet gotten to know you as well as your magic tricks' (Leipoldt,									
Shenoute III 77:26)									

Table 1 summarizes the asymmetry between affirmative and negative relatives with respect to the morphologically conditioned complementizer alternations.

Table 1. The distribution of relative complementizers with respect to tense/aspect and negative polarity

Affirmative RC	TAM	Complementizer Allomorph	Negated TAM	Negation pattern	Complementizer stacking
Present Tense	Ø	et	Negative Present Tense	пә an	et > e/ere
Future Tense	na	et	Negative Future Tense	nə na an	et > e/ere
Perfect Tense	а	ənt	Negative Perfect Tense	әтре	et > e/ere
Preterit Tense	ne, nere	e, ere	Negative Preterit Tense	nne an	et > e/ere
Habitual Aspect	ſa, ſar	ee, ən, et e	Negative Habitual Aspect	me, mere	et > e/ere
			Unexpected Negative Perfective	əmpate	et > e/ere

7. Negated relative clauses in Modern Irish

The situation with negated relative clauses in Modern Irish is diametrically opposite to that of Coptic insofar as the morphological expression of sentential negation takes precedence over the expression of subordination and attribution. In other words, the negative marker *nach* 'not' competes with the relative complementizer *a* for the same syntactic position. As McCloskey (2001: 72–73, 76–77) points out, this competition is entirely systematic, whereby the combination of sentential negation and a relative complementizer yields ungrammatical results (as indicated by starring *). Further, note that the negated relative clauses in examples (13a) and (13c) are introduced by the direct relative particle *a*L, which goes together with the relative gapping strategy (see above, footnote 5).

(13) The incompatibility of relative complementizers with sentential negation in Modern Irish

```
a. cibé
                amhrán;
                                                    sibh
                                                                sásta
                                                                            r rá \Delta_i
                            I_{RC}
whatever
                song
                            COMP be[PRES]
                                                    you[PL]
                                                                willing say [- FIN]
'Whatever song you're willing to sing
                            [RC nach
b. cibé
                amhrán,
                                        bhfuil
                                                    sibh
                                                                sásta
                                                                           r rá \triangle_i
whatever
                            NEG be[PRES]
                                                    you[PL]
                                                                willing say [- FIN]
                song
'Whatever song you're not willing to sing'
c. *cibé
                amhrán,
                            \int_{RC} a
                                        nach bhfuil
                                                          sibh sásta
                                                                           r rá \triangle_i
whatever
                song
                            COMP
                                        NEG be[PRES] you[PL] willing say [-FIN]
'Whatever song you're not willing to sing'
(Slightly adapted from McCloskey 2001: 73, (22a-c))
```

Although there is no such co-occurrence restriction in Coptic, the structure corresponding to the ungrammatical Irish sentence in (13c) above is systematically absent. This is suggestive evidence that in Coptic, too, sentential negation cannot directly be embedded under a relative complementizer. Rather, the converbal marker introduces an intermediate structural layer between the complementizer *et* and the morphological expression of negation.

As already mentioned in the previous section, negated relative clauses are used very infrequently in comparison with relative clauses of affirmative polarity. The low frequency of negated relatives derives from their information-structural properties. It is a cross-linguistically well-established fact that sentential negation is sensitive to focus (see Haegeman 1995; Herburger 2000; and Zeijlstra 2004 for representative studies). When the relative clause is negated, the referent of the nominal head is identified by means of a negative assertion. In denying that this referent bears a particular property or is engaged in a particular action, an alternative set of discourse referents is evoked for which

the corresponding positive assertion holds true. In this respect, then, negative relative clauses involve contrastive focus. The possibility of focus marking within relative clause constructions has been documented for Aghem (Western Grassfield Bantu, Cameroon) (see Hyman & Polinsky 2010: 222, 228). This raises important questions about the information- structural properties of relative clause constructions. We will have occasion to return to this issue in section 9.

8. Complementizer alternations and the gap/pronoun retention divide

Complementizer allomorphy has to it two dimensions, which are relatively independent of each other. One dimension concerns tense/aspect- and polarity-sensitive alternations. The other dimension involves variation with respect to the anaphoric element which connects the postnominal relative clause to the antecedent NP. In this section we will first consider the syntactic distribution of retained pronouns and then turn to the restricted gapping pattern. The results obtained will be compared to those of Keenan and Comrie's (1977) influential study on the relativizability of different grammatical roles, referred to as the "Noun Phrase Accessibility Hierarchy".

8.1 A generalized resumptive pronoun strategy

Converbal relative clauses are characterized by a generalized pronoun retention strategy, whereby a personal pronoun replaces the relativized subject, direct object or oblique constituent.

(14) A generalized resumptive strategy in converbal relative clauses

a. Subject relative clause

```
<u>roime</u> \underline{\text{nim}}_{i} [_{RC} e−\underline{\mathbf{f}}_{i} hit ^{J}əm pə-kah] man each REL (PRES)-3M.SG on DEF.M.SG-earth 'Every man who lives on earth' (Testament of Isaac 233:12)
```

b. Direct object relative clause

```
laau \frac{\partial n-\int En}{\partial x} \frac{nim_i}{\partial x} [RC e a-f \frac{t^{\int}o-\underline{u}\underline{x}_i}{\partial x}] something LINK-tree each REL PERF-3M.SG plant.PRON-3PL 'Every (single) one of the trees that he (Apa Matthew) planted' (KHML II 18:23–24)
```

c. Oblique Relative Clause

The pronoun retention strategy carries over to non-present/future tense relative clauses. As shown by examples (15a–c), the pivot NP is consistently linked to a personal pronoun in subject, direct object, and oblique relative clauses headed by the [+PAST] complementizer *ont*. It is clear then that the pronoun retention strategy applies under the same syntactic conditions in a number of genuine relative clauses. This point is highlighted in my recent article (Reintges 2011: 584–585).

(15) A generalized resumptive strategy in *ant*-marked relative clauses

a. Subject relative clause

b. Direct object relative clause

c. Oblique Relative Clause

e-p $\overline{\theta}$ -ma_i [$_{RC}$ **ant** a-k k^j $\overline{\theta}$ nt $\overline{\theta}$ -f nh $\overline{\epsilon}$:t $\overline{\theta}$ - \underline{f}_i] to-DEF.M.SG-place REL PERF-2M.SG find.PRON-3M.SG inside-3M.SG 'The place where you found it (the boat)' (Acts Andrew & Paul 204, 145–146)

Significantly, the corresponding English constructions to (14a-c) and (15a-c) contain no such retained pronoun.⁷ In their crosslinguistic study on

⁷ The relativization system of Modern Standard English has two major construction types, one where the essential anaphoric element is a relative pronoun such as *who*, *whom*, *what* and *which* and another one where there is a gap in the position relativized.

⁽i) a. I accepted the $\underline{advice_i}$ [$\underline{which_i}$ [\underline{comp} Ø [my neighbour gave me]. b. I accepted the $\underline{advice_i}$ [\underline{comp} that [my neighbour gave me Δ_i].

The presence of a relative pronoun excludes the insertion of a subordinating complementizer. As a result, the complementizer position is occupied by a phonologically null element (indicated as Ø). We may think of this null relative complementizer as an allomorph of the complementizer that. The reader is referred to Huddleston et al. (2002: 1036–1039 §3.1) for further explication and the details of the analysis. The relativization system of Coptic Egyptian and Modern Irish differs from that of Modern Standard English in two important respects. Firstly, the two languages only use the relativization strategy corresponding to THAT—relative clauses. In Browning (1987) and much subsequent work in generative syntax analyses, THAT—relatives have been analyzed as involving a null relative operator, i.e. the covert counterpart of an overt relative pronoun. On this view, Coptic and Irish differ from Standard English in exclusively utilizing a null operator construction to form relative clauses of different kinds. Secondly, retained pronouns are normal under relativization in Modern Irish and virtually obligatory in Coptic, while no such pronouns are permitted in any position relativized in Standard English relative clauses.

relativization constraints, Keenan and Comrie (1977: 92–93 and Table 2 on pg. 93) point out that (i) a number of languages use resumptive personal pronouns as part of a strategy for forming relative clauses and (ii) that the distributional behavior of these pronouns is determined by the Accessibility Hierarchy (AH). The typological prediction is that if a language utilizes retained pronouns for some position on the AH, it will do so for all lower positions but not necessarily for higher position of the hierarchy. As Keenan and Comrie formulate it (pg. 92):

It should be clear from Table 2 that not only does the tendency to present pronouns in positions relativized increase as we descend the AH, but also that once a language begins to retain pronouns it must do so for as long as relativization is possible at all. This is a natural consequence of the hypothesis that pronoun retention will be used in proportion to the difficulty of the position being relativized, though the critical point of difficulty is different for different languages.

Keenan and Comrie's findings are largely confirmed in theoretical work by Demirdache (1991), who, however, proposes a more fine-grained typology of retained pronouns. In her system retained pronouns fall into two classes, those which serve as some kind of saving mechanism in contexts where relativization is difficult or impossible, and those which are used across the board. Members of the latter class are analyzed as instantiating in-situ relative pronouns, which differ from relative pronouns in English and in Classical Greek in that they do not move to the left edge of the relative clause but rather remain in-situ in the position that is relativized upon. In this way Demirdache's analysis can capture the fact that pronoun retention is obligatory in a broad range of relative clause constructions.

8.2. The Highest Subject Restriction

There is one notable exception to the pervasiveness of the resumptive pronoun strategy, which derives from the applicability of the so-called Highest Subject Restriction. In many languages in which the use of co-referenced pronouns is normal under relativization, such pronouns are no longer permissible in the highest subject position of a relative clause. Rather, pronoun retention is blocked and the gapping strategy must be used instead. The Highest Subject Restriction has been extensively studied in Modern Celtic and in Afroasiatic languages (see, among various others, McCloskey 1990, 2006 for Modern Irish; Ouhalla 1993 for Berber and Breton; Doron 1982 and Shlonsky 1992 for Modern Hebrew and Palestinian Arabic and Reintges 2000 for Older Egyptian). As I have shown in earlier work (Reintges 1998), this anti-pronoun restriction has a much more limited scope in Coptic and only applies to subject relatives with present or future tense reference. It may be recalled from Section 4 that the two kinds of

relatives are headed by the [-past] complementizer et, which, due to the absence of the converbal relative particle e, is string adjacent to the embedded subject position. Examples (16a-b) further illustrate this point.

(16) The applicability of Highest Subject Restriction in present and future subject relatives

- a. $\underline{p\text{-aggelos}}_i$ [RC et Δ_i diakonei e-pe-k-ei \mathfrak{I} t Aßraham] DEF.M.SG-angel REL (PRES) serve.ABS PREP-DEF.M.SG-2M.SG.POSS-father Abraham 'The angel who serves your father Abraham' (Testament of Isaac 229:18–19)
- b. $\underline{\text{t-apophasis}}_{i}$ [RC et Δ_{i} na \int DIPE]

 DEF.F.SG-verdict REL EPIST.FUT happen.ABS

 'The verdict that is going to happen' (Amélineau, Shenoute I, 2, 178:14)

The Coptic relativization facts are in line with Keenan & Comrie's (1977) Accessibility Hierarchy insofar as the gapping strategy is restricted to subject relatives. On the other hand, relative constructions in which the pronoun retention strategy applies tout court provide potentially significant evidence against the primacy of subject relativization as opposed to the relativization of non-subject constituents. Essentially the same point is made in Fox (1987).

Shisha-Halevy (2009: 100) presents an alternative analysis of the restricted gapping pattern, according to which the complementizer itself occupies "the slot of theme pronouns, that is, a constituent part of the nexus and thus not a converter". The treatment of *et* as a relative pronoun in subject relatives is problematic for at least two reasons. One reason is that the relativizer *et* enters into a paradigmatic opposition with other tensed complementizers, implying that it is endowed with its own temporal and aspectual specification. Personal pronouns, on the other hand, are not the kind of elements that could possibly be endowed with temporal and aspectual features. The other reason is that the [PAST] relative complementizer *et* is paired with the converbal relative particle *e* in present and future tense relatives in which a non-subject constituent is relativized. As illustrated by examples (17a–b), this is again a relativization pattern in which there is an independent embedded subject as well as a retained pronoun in the position being relativized. This is conclusive evidence that the complementizer *et* is not a pronominal category at all.

(17) The resumptive strategy in present and future non-subject relatives

- a. $\underline{p} = \int \underline{a} t^f \underline{e}_i$ [RC et ere $\underline{p} = r = m = E : i$ na $t^f = o = f_i$]

 DEF.M.SG-WORD REL REL DEF.M.SG-AGENT.NOUN-house FUT.EPIST SAY.PRON-3M.SG

 'The word that the superintendent will speak' (Precepts of St. Pachomius 122)
- b. $\underline{p\text{-}\&i}_i$ [RC et ere pei- $\int \&i$ pei- $\int \&i$ mowət ənh&tə- \underline{f}_i] Def.m.sg-house rel rel (PRES) dem.m.sg-boy little die.stat in-3m.sg 'The house in which the young boy died' (Acts Andrew & Paul 206:163–164)

To complete the picture sketched thus far we have to consider two more contexts, which are sensitive to the Highest Subject Restriction. One such context involves two relative clauses which are stacked upon each other. In this context a relative gap is inserted both in the higher and the lower subject position.

(18) The gapping strategy in stacked present and future subject relatives $\frac{\text{ne-sn} \boldsymbol{\epsilon} \boldsymbol{u} \boldsymbol{z}_i}{\text{ne-sn} \boldsymbol{\epsilon} \boldsymbol{u} \boldsymbol{z}_i} \quad \begin{bmatrix} \text{RC et } \boldsymbol{\Delta}_i & \text{waa} \boldsymbol{\beta} & \begin{bmatrix} \text{RC et } \boldsymbol{\Delta}_i & \text{Joop} & \text{h} \boldsymbol{\theta} \boldsymbol{m} & \text{p} \boldsymbol{\theta} - t^{\text{J}} \boldsymbol{a} \boldsymbol{y} \boldsymbol{e} \end{bmatrix} \end{bmatrix}$ DEF.PL-brothers REL (PRES) be.holy.STAT REL (PRES) exist. STAT in DEF.M.SG-desert 'The holy brothers who reside in the desert' (Coptic Martyrdoms 217:1)

An interesting pattern arises in negated present and future tense subject relatives. When sentential negation takes its canonical bipartite form na ... an, the Highest Subject Restriction is no longer operative. Rather, a resumptive pronoun must be inserted in the preverbal subject position (see Ouhalla 1993: 499–505 for comparable facts in Berber). As with negated relatives in general, complementizer stacking is obligatory, as seen in example (19a). On the other hand, if the negative scope marker na is deleted from the surface structure of the clause, the complementizer et is immediately adjacent to the preverbal subject position. Because of this, a resumptive pronoun is illicit and a relative gap appears in its place. The non-standard gapping strategy in example (19b) has meticulously been documented by Polotsky (1987/1990: 52–54 §13).

(19) The non/applicability of the HSR in negated present tense subject relatives

```
ənsa tə-dikaiosyn€ 1
a. <u>nə-hethos</u>; [RC et e
                              na \underline{se} = pEt
                                                        an
DEF.PL-gentile REL REL NEG (PRES) 3PL-run.STAT
                                                        not
                                                                   after DEF.F.SG-justice
'The gentiles who did not pursue justice' (Romans 9:30)
                                   amahte
b. <u>pə-monakhos</u>; [RC et
                                                    an əm-pe-f-las
DEF.M.SG-monk
                   REL (PRES)
                                   restrain.ABS
                                                   not PREP-DEF.M.SG-3M.SG.POSS-tongue
                                   əm-pe-k<sup>j</sup>ə:nt
malista
              əm-pə-nau
                                                    1
especially
              in-DEF.M.SG-hour
                                   LINK-DEF.M.SG-anger
'The monk who does not restrain his tongue, especially in the hour of anger' (Chaîne,
Apophthegmata Patrum, n°12, 3:8–9)
```

In the restricted gapping pattern, the [-PAST] complementizer et bears a close resemblance to the direct relative particle aL in Modern Irish. The parallelism breaks down in direct object relatives. In Modern Irish, gaps may vary with resumptive pronouns in the direct object position, while the gapping strategy is excluded in the corresponding Coptic construction. Furthermore, the complementizer particle aL is used in present and past contexts, whereas the Coptic complementizer et enters into a tense opposition with the [+PAST] complementizer et.

9. The syntax of resumptive relative clauses

Based on the previous discussion, we arrive at the following generalizations about the internal syntax of converbal and genuine relative clauses.

(20) Generalizations about converbal and genuine relative clauses

- (i) Converbal relative clauses comprise the core structure of relative constructions. Its most central elements are the converbal particle *e* and a retained pronoun in the position that is being relativized.
- (ii) Genuine relative clauses represent the structurally more complex option. Syntactic complexity manifests itself in the presence of an additional complementizer layer on top of the converbal relatives. This layer contains the [-past] complementizer *et* and corresponds to the definite or the demonstrative article on the nominal head or pivot of the relative construction.
- (iii) There is a residual gapping pattern, which conforms to the anti-pronoun restriction of the Highest Subject Restriction.

From the descriptive generalizations stated in (20i–iii), it can be deduced that the converbal marker itself is not an indefinite complementizer as it co-occurs with the [¬PAST] complementizer *et* in complementizer stacking relatives. Therefore, the two relative particles are not differentiated with respect to a definiteness opposition. Rather, the [¬PAST] complementizer *et* marks concord in definiteness with the nominal head of the entire relative clauses, whereas the converbal marker is underspecified for both tense/aspect and nominal concord features.

In the reminder of this section I will outline a syntactic analysis of resumptive converbal and genuine relative clauses. The interested reader is referred to my previous work (Reintges 2007: 262–264, Reintges 2011: 587–591) for a tentative analysis of the restricted gapping pattern as well as for the further technical details of the proposal. My point of departure for the analysis of resumptive relative clauses is the view that complementizer stacking structures are robust evidence for an articulated left periphery in relative clause constructions. There are at least two layers of functional superstructure, each of which is realized by a distinct relative marker. One functional projection is the Complementizer Phrase (CP), which is the topmost layer of the clause, and the other projection is the Focus Phrase.

There is construction-independent evidence for the lower syntactic position of the converbal marker. As shown by the adverb question in (20), the converbal particle e follows the question particle e in linear order. As the topmost functional position of the clause, the node C° is typically associated with the illocutionary force of the clause. It therefore hosts clause-typing elements such as interrogative particles.

(21) Adverbial question with both interrogative particle eye and converbal marker e eye ere ne-ən-∫Erre nuɪt e eßol hən nim ?

Q REL (PRES) DEF.PL-2PL.POSS-son cast.ABS PCL in whom 'In whom are your sons casting out (demons)?' (Luke 11:19)

As the head of a dedicated focus projection, the converbal particle must be endowed with the relevant semantic features. This raises a question about the structural role of the relative complementizer *et*. Adapting Baker's (2008: 118–119) analysis of Lok<u>aa</u> (Niger-Congo) relative constructions, I analyze the relative complementizer *et* as an associative relative head. In this function, it expresses definiteness agreement with the antecedent NP but it crucially lacks information-structural features. Following up on Demirdache's (1990) proposal, I analyze retained pronouns as clause-internal relative pronouns. The in-situ placement of operator expressions is a hallmark of Coptic filler—gap constructions. Subject and direct questions of the kind in (22a–b) are a case in point.

(22) <u>In-situ argument questions with converbal marker e</u>

- a. **ere** nim na na na-n?

 REL who FUT.EPIST have.mercy.ABS for-1PL

 'Who will have mercy upon us?' (Shenoute, Paris 13154v, a14)
- b. e-i na t^f e u^x na-k?

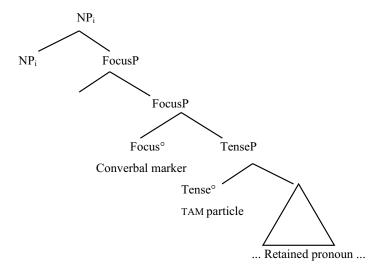
 REL-1SG FUT.EPIST say.NOM what to-2MSG

 'What shall I say to you?' (Chaîne, Apophthegmata Patrum n°28, 5:25)

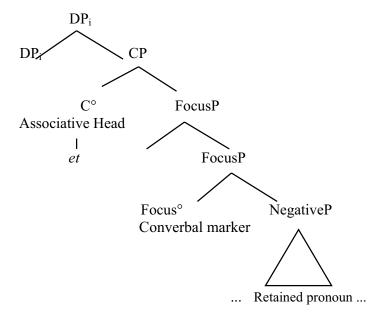
Retained pronouns which represent in-situ operators are distinguished from ordinary personal pronouns not only in terms of their bound reference (i.e. they are anaphorically related to the nominal head of the relative clause) but also in terms of a special focus-sensitive morphology. In a sense, then, insitu relative pronouns are syntactically discontinuous constituents, consisting of a focus-indicating converbal marker and a coreferential personal pronoun. Relative clauses with retained pronouns therefore belong to a broad family of morphologically marked focus constructions. At this juncture, it is interesting to note that relativization has been related to focus and contrastive emphasis in earlier work (see Schachter 1973; Kuno 1976; Hyman and Watters 1984 for representative studies). The tree diagrams in (23a) and (23b) further illustrate. The left periphery of relative clauses is demarcated upwards by the Complementizer Phrase (CP) and downwards by the Tense Phrase (which is headed by tense/aspect/mood particles).

The morpho-syntax of alternating complementizers in Coptic relative clause...

(23) a. Converbal relative clauses



b. Complementizer stacking relatives



10. Concluding remarks

Coptic has an intricate system of alternating relative complementizers, which operate at the syntax-morphology interface. Relative complementizers express the core relativization function of subordination and modification, but incorporate into their semantic temporal and aspectual features. Consequently, the temporal, aspectual and modal specification of affirmative relative clause underlies the selection of a particular complementizer variant. Relative clauses containing a negative marker are characterized by the pairing of the relative complementizer et and the converbal particle e. Pronoun retention represents another dimension of variation in the complementizer system. While the retained pronoun can be directly connected with the [+PAST] complementizer ant, there is a division of labor in the complementizer stacking pattern between the complementizer et, which marks subordination and definiteness agreement with the relative pivot, and the converbal marker e, which marks focus and emphasis. In other words, complementizer relatives belong to a larger family of focussensitive constructions. Despite many intricate and idiosyncratic properties, alternating relative complementizers provide a window onto the internal syntax and information structure of Coptic relative clauses.

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