The polyfunctionality of Coptic Egyptian relative complementisers

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Abstract

The present study is concerned with the complex ways in which alternating relative complementisers in Coptic are employed as a morphological flagging device for unbounded dependencies in various types of relative clause constructions and wh questions. We shall argue in particular that the alternation in shape is locally conditioned by properties of the complement (TAME) and the antecedent noun (definiteness), which can be modelled via selectional features such as \textsc{comps} and \textsc{mod}, plus the prosodic status of right-adjacent material (phrase vs. clitic). We shall show that all applicable conditions carry over from relatives to wh in-situ, suggesting to model the polyfunctionality of these complementisers in terms a systematic alternation between resumptive $\textsc{slash}$ and in-situ $\textsc{que}$ dependencies, modelled in terms of a lexical rule.

Furthermore, we shall discuss the status of unbounded dependencies and argue that the pervasiveness of resumption with relatives and ex-situ wh arguments can be attributed to the absence of \textit{gap-synsem} on \textsc{arg-st}. We shall argue that apparent subject “gaps” in relative constructions are of a highly local nature, best to be understood in terms of subcategorisation for a finite VP complement. Finally, we shall show that the ban on argument gaps does not carry over to wh ex-situ adjuncts, providing additional motivation for maintaining a systematic distinction between these two types of extraction.

1 Typological properties of Coptic

Coptic is the vernacular of Late-Antique and Early Medieval Egypt and represents the most recent stage of Ancient Egyptian [Afroasiatic] (from around the 3rd to the 13th c. CE). The language consist of at least six regional varieties, two of which gained supra-regional importance: Sahidic (from Arabic \textit{ʔaṣ-Saʕid} ‘Upper Egypt’) and Bohairic (from Arabic \textit{ʔal-Buhairā}, a province southeast of Alexandria), the latter of which functions as the liturgical language of the Coptic Orthodox Church (for dialect variation, history, and genetic affiliation, see Layton (2000, 1–4 §§1–6) and Reintges (2004, 2–6 §0.1)). All data are taken from corpora of the classical Sahidic dialect, which is renowned for its rich literary sources.

In terms of a coarse-grained morphological typology, the language falls near the isolating pole of the analytic–synthetic dimension. The language’s basic word order is Subject-Verb-Object. Tense-Aspect-Mood-Evidentiality (TAME) particles furnish a broad range of conjugation patterns, in which lexical verbs can appear. TAME markers fall into two positional classes of pre-subject and pre-verbal (=post-subject) particles. The perfect tense particle $a$ in (1) precedes the subject, whereas the pre-verbal future tense particle $n\alpha$ in (2) follows it.

\begin{align*}
\text{(1) } & \text{a } t\omega=\text{so} \text{ph}i\text{a } k\text{et } u=e\ddot{i}\text{ } n\alpha=s \\
\text{PERF DEF.F.SG=wisdom build INDEF.SG=house for=}3\text{F}.\text{SG}
\end{align*}

\footnote{We are gratefully indebted to the audience of the HPSG 2014 conference for their insightful and stimulating comments, in particular to Anne Abellé, Doug Arnold, Bob Borsley, Matthew Dryer, Ray Jackendoff, and Philip LeSourd. In particular the discussions with Bob Borsley have been most helpful towards sharpening and clarifying the ideas presented here.}
‘Wisdom has built a house for herself.’ (Proverbs 9, 1)

(2) $\text{pa}=t\text{\oe is} \quad \text{na} \quad \text{krine} \quad \text{an}=\text{n\text{\oe}=lao}$
$\text{DEF.M.SG}=\text{lord} \quad \text{FUT} \quad \text{judge} \quad \text{PREP}=\text{DEF.PL}=\text{people}$
‘The Lord will judge the nations.’ (Psalm 28, 11)

The language has two negation strategies. The first strategy is to use the double negation $\text{an} \ldots \text{an}$, where the negative scope marker $\text{an}$ is often omitted. The second strategy is to use a negative TAME particle in which negative polarity and a given temporal, aspectual or modal semantics are fused into a single, non-segmentable morph.

(3) a. $\text{ar\text{\eu}} \quad \text{am} \quad \text{pa}=\text{s\text{\oe}n} \quad \text{tet} \quad \text{an}=\text{h\text{\text{\te}}t} \quad \text{an}=\text{fut} \quad \text{e}=\text{fatfe}$
perhaps $\text{NEG} \quad \text{DEF.M.SG}=\text{brother} \quad \text{persuade} \text{.STAT} \quad \text{of}=\text{heart} \quad \text{not}=\text{to}=\text{talk}$
$\text{n\text{\text{\\text{\text{\te}}}}ma}=\text{n}$
to=$\text{1.PL}$
‘Perhaps the brother is not persuaded of heart to talk to us.’ (Apophthegmata Patrum, ed. Chaîne, n° 238 70, 21)

b. $\text{na}=\text{f}=\text{na} \quad \text{mu}: \text{an} \quad \text{e}=\text{mpe}=\text{f} \quad \text{nau} \quad \text{e}=\text{pe}=\text{khristros}$
$\text{NEG}=\text{3.M.SG}=\text{FUT} \quad \text{die} \quad \text{not}=\text{REL}=\text{NEG.PERF} \quad \text{see} \quad \text{PREP}=\text{DEF.M.SG}=\text{Christ}$
$\text{am}=\text{pa}=t\text{\oe is}$
$\text{LINK}=\text{DEF.M.SG}=\text{lord}$
‘He will not die without having seen Christ, the Lord.’ (Luke 2, 26)

(4) $\text{awo}: \text{ampe} \quad \text{pa}=\text{kosmos} \quad \text{so}=\text{won}=\text{f}$
and $\text{NEG.PERF} \quad \text{DEF.M.SG}=\text{world} \quad \text{recognise}=\text{3M.SG}$
‘And the world did not recognise him (the Christ).’ (John 1, 10)

Coptic is a language without agreement inflection on the verb. Person, number, and gender marking on TAMEs, verbs and prepositions can be identified with enclitic subject and object pronouns, respectively, which appear in the same surface position as full NPs with which they are in complementary distribution. Moreover, pronominal arguments must always overtly be expressed; i.e. there is no pro-drop (Reintges, 2004).

2 Relative clauses

2.1 Converbal vs. canonical relative clauses

Coptic has a rich system of specialised syntax and morphology for relative constructions of various kinds. The two major relativisation strategies are represented by converbal and canonical relative clauses, which differ from each other in the range of antecedents that they can take. Converbal relative clauses typically modify indefinite and universally quantified NPs. In providing information necessary to establish the identity of the antecedent or to narrow down the set of potential referents, they can only be used as restrictive modifiers.
The complementary relativisation pattern features definite antecedents. In contrast to converbal relatives, canonical relative clauses have restrictive as well as non-restrictive uses. In the latter case, they are used as parenthetical assertions that provide supplementary information about a contextually given referent.

2.2 Complementiser allomorphy

Besides their distributional differences, canonical and converbal relatives can also be distinguished on a morphological basis in terms of context-sensitive alternations in the shape of the relative complementiser. The language recognises five distinct relative complementisers e, ere, et, ant, and an, all of which show a morphosyntactic behaviour distinct from run-of-the-mill subordinate conjunctions such as tʃe ‘that’ (Reintges, 2012).

The converbal marker comes in two variants, the short form e and the long form ere. The distribution between the two allomorphs is relatively straightforward: the base form e is selected when the converbal marker is adjacent to an enclitic subject pronoun or a TAME marker, while the long form ere is selected when it is followed by a full NP subject. Given the syntactically heterogeneous character of the elements triggering the short form, we shall conclude that the distribution of e vs. ere is best understood in terms of a distinction between lexical head vs. full phrasal constituents, which is ultimately related to the presence vs. absence of a prosodic phrase boundary.
In contrast to converbal relatives, canonical relative clauses display a considerable degree of complementiser allomorphy, which varies along with the TAME particle and the polarity of the embedded relative clauses. In affirmative relative clauses, alternating relative complementisers encode a rudimentary [± past] distinction, which reflects only partially the tripartite present–past–future tense system of the language. The relative complementiser *et* is selected in canonical present and future tense relatives and the allomorph *موت* in canonical past tense relatives with the perfect tense particle *اَلَّا*.

The binary [± past] distinction that we see with affirmative relative clauses does not carry over to the corresponding negated relatives, which are consistently marked by the complex relative complementisers *إِتْرُ(إِ)ْ* regardless of the negation strategy that is employed.
(10) a. nə=nethos [ete=bn=se pet an an&sa ta=dikaiosyne:] DEF.PL=gentile REL.DEF=NEG=3PL run.STAT not after DEF.F.SG=justice
   ‘The gentiles who did not pursue justice’ (Romans 9, 30)
b. jen nim [ete=nə=f na ti karpom an [e=nunu=:] tree every REL.DEF=NEG=3MS.SG FUT give fruit not REL=be.good=3MS.SG
   ‘Every tree, which will not give good fruit (lit. fruit which is not good)’ (Luke 3, 9)
c. nai [ete=mpe hoine mate əmmɔ=:] DEM.PL REL.DEF=NEG.PERF some obtain PREF=3PL
   ‘These (things) which some have not obtained’ (I Timothy 1, 6)

Converbal relative clauses are characterized by a generalised resumptive pronoun strategy, in which a personal pronoun replaces the relativised subject, direct object or oblique NP constituent.

(11) a. ɛn=me nim [e=f hitʃom pə=kah]
   man every REL=3MS.SG on DEF.M.SG=earth
   ‘Every man who lives on earth’ (Testament of Isaac, ed. Kuhn, 233, 12)
b. laau ən=ʃɛn ♬♧♩=tree nim every [e=a=f tʃ=q=u]
   something LINK=tree every REL=PERF=3MS.SG plant=3PL
   ‘Every (single) one of the trees that he planted’ (Koptische Heiligen- und Martyrerlegenden, ed. Till, II 18, 23–24)
c. ma nim [e=u: na tʃ=q=s ero=f]
   place every REL=3PL FUT send.=3PL to=3MS.SG
   ‘Every place that they will be sent to’ (Precepts of St. Pachomius, ed. Kuhn, no. 129)

The generalised resumption strategy carries over to canonical past relatives introduced by the complementiser ənt (Reintges, 2012).

(12) a. ne=k\\k Jong men ne=[pe:te [ənt=a=u: fo:pe e]hol
   DEF.PL=wonder with DEF.PL=miracle REL=PERF=3PL exist PCL
   hi=tota=f am=pe=n=eiɔt Apa Matheos]
   by=have=poss.3MS.SG PREF=DEF.M.SG=poss.1PL=father Apa Matthew
   ‘The miracles and wonders that came about through the agency of Our Father Matthew’ (Koptische Heiligen- und Martyrerlegenden, ed. Till, II 18, 14–16)
b. pə=hoβ [ənt=a pə=nu:te kjal=f ero=n]
   DEF.M.SG=thing REL=PERF DEF.M.SG=god entrust=3MS.SG to=1PL
   ‘The matter that God entrusted (it) to us’ (Shenoute, ed. Amélineau, I.1 36, 5)
Relativisation in Coptic Egyptian involves a non-local dependency between the antecedent and the resumptive element, mediated by the relative complementiser. As illustrated in (13), relativisation out of an embedded (conjunctive) clause is indeed attested, showing that the dependency is clearly not clause-bound.

(13)  
\[ \text{nim pe pei-ke-wa} \quad [\text{et hæn te=tøn-mete}] \]  
\[ \text{who COP.M.SG DEM.M.SG-other-one REL in DEF.F.SG=POS.2PL-midst} \]  
\[ [\text{et<><>=mp=ei ðmpɔʃa} \quad [n=f \quad \text{fatʃe nɔmма=i}]] \]  
\[ \text{REL=NEG.PERF=1SG be-worthy CONJ=3.M.SG speak with=1SG} \]  
‘Who is this other one who is in your midst that I was not worthy that he speaks with me?’ (Koptische Heiligen und Martyrerlegenden, ed. Till, II 30, 18-19)

Coptic recognises one construction where an apparent gap is found inside the relative clause: when introduced by the complementiser \( \text{et} \), the relativised subject remains unexpressed. However, in contrast to the other relative complementisers, a subject relativemarkedby \( \text{et} \) is of a highly local nature: as shown by the data in (14) above, use of \( \text{et} \) is only possible, if the complementiser is immediately followed by either the lexical verb, or the post-subject future \( \text{na} \).

(14)  
\[ \text{a. etʃe te=uː−pistis} \quad [\text{et tʃek eβɔl}] \]  
\[ \text{because.of DEF.F.SG=3PL.POSS-faith REL.DEF accomplished PCL} \]  
‘Their faith, which is accomplished’ (Testament of Isaac, ed. Kuhn, 233, 19)

\[ \text{b. } \text{t=apophasis} \quad [\text{et na fo:pe}] \]  
\[ \text{DEF.F.SG=verdict REL.DEF FUT happen} \]  
‘The verdict that will be reached’ (Shenoute, ed. Amélíneau, I 2178, 14)

The complex complementiser \( \text{et}(\text{re}) \) must be used in non-subject present and future tense relatives, which are characterised by the presence of a resumptive pronoun for the relativised argument.

(15)  
\[ \text{a. pɔ=ʃatʃe} \quad [\text{etere pɔ=ðam-ɛ:i} \quad \text{na}] \]  
\[ \text{DEF.M.SG=word REL.DEF DEF.M.SG=AGENT.NOUN-house FUT} \]  
\[ (\text{tɔ}=f) \]  
\[ \text{say.INF=3M.SG} \]  
‘The word that the superintendent will speak’ (Precepts of St. Pachomius, ed. Kuhn, no. 122)

\[ 1\text{Besides future } \text{na Coptic witnessed two more raising TAM markers, i.e. conditional } \text{šan and deontic modal } \text{e}. \text{However, these two markers are not attested in side relative clauses.} \]
Furthermore, if a pre-subject TAM auxiliary or a negative marker is present, use of a resumptive is again obligatory, together with one of the standard non-local relative complementisers *ant* or *ete(re)*, as shown in (10) above.

Given the highly local nature of zero subjects following *et*, together with the general absence of argument gaps in the language, the Coptic data are of high significance for a general theory of resumption, ultimately providing evidence against a conception of resumption as a “last resort” operation (Shlonsky, 1992).

3 Wh questions

3.1 Wh in-situ constructions

Alternating relative complementisers are not restricted to relative clauses but may also appear in various non-relative environments, such as yes/no and wh questions, declarative focus sentences, coordinate structures, comparative constructions, predicative adjunct, temporal adverb clauses, conditionals and so on. The concern here is with Wh questions. As shown by the contrast between (16a) and (16b), clause-internal interrogative pronouns such as *nim* ‘who’ and *u*: ‘what’ only assume a genuine question interpretation, when they are construed with an initial relative complementiser; otherwise they are interpreted as specific indefinites in an ordinary declarative clause. In other words, the presence of a relative complementiser is crucially involved in specifying the interrogative force of the wh in-situ construction (Reintges et al., 2006; Reintges, 2007).

(16) a. e=ëti na ti u: na=k ?
   rel=1sg fut give what to=2sg.m
   ‘What shall I give you?’ (Genesis 30, 31)

b. a=i ti u: mën u: ehun e=pei=ma
   perf=1sg give what and what pcl to=def.m.sg=place
   ‘I gave such and such a thing to this place.’ (Shenoute, ed. Leipold, IV 105, 16)

Wh in-situ has a broad syntactic distribution, appearing in main and embedded clauses, introduced in the latter case by the finite subordinating complementiser *tfe* ‘that’.

(17) a. ant=a u: fo:pe ṣem=œ=k pa=ṣeis p=œrɔ?
   rel=perf what become prep=2m.sg def.m.sg.1sg=lord def.m.sg=king
   ‘What happened to you, my Lord and King?’ (Eudoxia, ed. Orlandi, 36, 24)
b. ənt=ti əwən an [tʃε ənt=a u: jɔːpe əmmɔ=s
Neg=1sG know not that Rel=perf what become Pref=3r.SG
‘I do not know what has happened to her.’ (Hilaria, ed. Drescher, 7, 30-31)

Multiple wh in-situ questions are only marginally attested and display a pair-listing reading, in the next example, pairs of informers and informs.

(18) ənt=a nim tsaβɔ=f e=nim?
Rel=perf who teach=3m.sg about=who
‘Who taught him about whom?’ (Shenoute, Wessley 9, 110a: 9f)

Neither wh arguments nor wh adverbs show any resistance to wh in-situ interrogation.

(19) a. ere nim na na na=n?
Rel who Fut have.mercy for=1pl.
‘Who will have mercy upon us?’ (Shenoute, pap. Paris 13154v, a14)

b. e=i na tʃe u: na=k?
Rel=1sg Fut say what to=2m.sg
‘What shall I say to you?’ (Apophthegmata Patrum, ed. Chaîne, n°28 5, 25)

c. əwo: ənt=a=u:
Rel=perf=3pl come pcl. where
‘From where did they come?’ (Apocalypse 7, 13)

d. ənt=a=k
Rel=perf=2sg.m come to=dem.sg.m=place in=what of=manner
‘How did you get to this place?’ (Coptic Martyrdoms, ed. Budge, 206, 29)

It is also possible, although not very common, to have wh in-situ in negated questions.

(20) ete=mpe tʃoːhəm hən af əm=ma?
Rel=def=neg.perf.2r.sg defile in what of=place
‘In which place have you not become defiled?’ (Besa fragment 35 116, 14-15)

Present tense and future tense wh in-situ questions are introduced by the con-verbal relative markers e(re), while affirmative and negative past tense wh in-situ questions are marked by the relative complementisers ənt and ete(re), respectively and pattern in this respect with canonical relative clauses. A question arises with respect to the scope of the wh in-situ constituent in embedded clauses. As shown by (17b), the in-situ wh word generally takes the embedded scope, which produces an indirect question interpretation. In this context, the relative complementiser surfaces
immediately to the left of the subordinating complementiser *tfe*. However, there are
also attested examples in which the in-situ wh constituent scope out of the embedded
clause and takes matrix scope, with the resulting interpretation being that of an indi-
rect question. When this happens, the relative complementiser occurs in the matrix
clause over which the wh in-situ takes scope.

(21)  ere əmː=mɛɛʃe  tʃoː əmmɔ= s [tʃe  ang nim]?
    REL DEF.PL=crowd say PREP=3F.SG that I who
    ‘Who do the crowds say that I am?’ (Luke 9, 18)

The attentive reader might have noticed that both *e(re)* and *ete(re)* are attested in
wh in-situ constructions, alongside perfective *ənt*. We tentatively attribute this some-
what free variation to the absence of an antecedent noun that could restrict the use of
either complementiser on the basis of a definiteness distinction.

3.2 Wh ex-situ constructions

In terms of Cheng (1991)’s typology of wh-constructions, Coptic can be classified as
an optional wh fronting language, in which wh ex-situ is available as a marked alterna-
tive to the canonical Wh in-situ pattern. Relative complementisers are systematically
absent in wh ex-situ questions. In contrast to wh in-situ constructions, wh ex-situ dis-
plays an argument/adjunct asymmetry, as fronted wh arguments are always construed
with a resumptive pronoun, while fronted wh adjuncts are not (Reintges, 2007).

(22)  a.  nim a=f  ent=k  e=pei=ma?
    who PERF=3SG.M bring=2M.SG to=DEM.SG.M=place
    ‘Who brought you here?’ (Koptische Heiligen- und Martyrerlegenden, ed.
    Till, I 3, 7-8)
  b.  eβɔl ton a=tetən ei e=pei=ma?
    PCL where PERF=2PL come to=DEM.SG.M=place
    ‘From where did you come here?’ (Coptic Martyrdoms, ed. Budge, 220,
    8)

The scope of wh ex-situ is contingent on the syntactic position of the wh consti-

tuent. When the wh phrase appears to the left of the subordinating complementiser
*tfe*, it takes the embedded scope and the entire construction is interpreted as an indi-
rect question. On the other hand, if the wh phrase appears in the matrix clause, the
resulting interpretation is that of a direct question.

(23)  a. ən=aʃ ən=he əntək kə=tʃɔː əmmɔ= s [tʃe tet(ən)=na
    in=what of=manner YOU.SG.M 2SG.M=say PREP=3F.SG that 2PL=FUT
    ər əᵣmhe]?
    become free.man
    ‘How do you (sg) say that you (pl) will become free?’ (John 8, 33)
b.  ti=tʃənuː əmɔ=tən [tʃe hən ən=fatʃe a=tentan mu.te] 
   1sg=ask prep=2pl. that with what of=word perf=2pl. say 
   erɔ=i] 
   about=1sg 
   ‘I ask you with which reason do you say about me ...’ (Acts 10, 29)

4 Analysis

4.1 Relative constructions

As we have seen in section 2, the relative complementisers an, e(re), and ete(re) mark the top of an unbounded dependency, with the bottom of that dependency realised as a resumptive pronoun. Following recent work on resumption within HPSG (Taghvaipour, 2005; Crysmann, 2012; Borsley, 2010; Alotaibi and Borsley, 2013), we assume that resumption involves ordinary slash passing, rather than a separate non-local feature resump, as postulated by Vaillette (2001).

For the purposes of this paper, we shall adopt the specific proposal of Borsley (2010) and Alotaibi and Borsley (2013) who suggest that resumptive dependencies require an amendment of standard lexical slash amalgamation (Ginzburg and Sag, 2001) to permit optional termination of a slash dependency by way of index-sharing between the element in slash with that of a pronominal on arg-st, to license structures as illustrated in Figure 1.

![Figure 1: slash termination by resumption (cf. Borsley, 2010)](image)

In order to license termination of a slash dependency by way of a (resumptive) pronoun, introduce this option by means of the two constraints shown in Figure 2.

Given this revised version, there are essentially three ways of satisfying this principle: either by co-indexation of the word’s slash element with a (bound or free) pronoun (=resumption), standard termination of the slash dependency by a gap-ss, or else by a canon-ss that itself is slashed. As we have argued above, the grammar
of Coptic does not seem to allow for argument gaps. In order to capture this empirical generalisation about the language, all it takes is to ban termination of slash dependencies by way of gap-ss, as captured in Figure 3.

\[
\text{word} \rightarrow \left[\text{ARG-ST list (canon-ss)}\right]
\]

Figure 3: Ban on argument gaps

Having discussed how slash dependencies can be terminated by means of pronouns, let us turn to the top of the unbounded dependency construction. Consider the schematic lexical entry for standard S-taking relative complementisers given in Fig. 4: apart from establishing modification of the antecedent noun via the mod feature, these complementisers bind a slash dependency which they restrict to be an NP. In addition, they equate index of the element in slash with that of the antecedent noun. Additional properties of individual relative complementisers, e.g. the constraint regarding definite antecedents for ant and ete(re) can be stated by reference to the mod value: e.g. the specific entries for ant/ete(re) will require the antecedent noun to be definite, whereas those for e(re) will restrict it to be indefinite. Similarly, the restriction of ant to past relatives can be captured by means of a constraint on its complement’s index.

Besides standard relatives featuring a non-local dependency with a resumptive at its foot, we observed exactly one construction with an apparent subject gap, involving the complementiser et. As detailed above, zero realisation was restricted to those constructions where an overt subject would otherwise surface at the left edge. Given the highly local nature of zero relativised subjects and the general absence of argument gaps in the language, we conclude that the properties of et are best captured in terms of local subcategorisation: as detailed in Fig. 5, et is subcategorised for a VP complement, i.e., a partially saturated verbal projection with an open subject valency, the index of which is structure shared with the index of the antecedent noun. Making the somewhat standard assumption that post-subject TAME markers are raising auxiliaries, whereas pre-subject TAME markers and negation combine with a fully saturated verbal projection, the distribution of et can be correlated with the different
Having shown that apparent subject gaps in relatives are best understood as a local phenomenon, the generalisation that Coptic lacks argument gaps can be straightforwardly accounted for by means of the constraint in \(3\) which restricts argument structure to consist entirely of canonical synsem objects.

### 4.2 Wh constructions

As we have seen in section 3, Coptic has (at least) two alternative constructions for wh questions: (i) wh ex-situ which is characterised by fronting of a wh phrase to the left of the clause or sentence, possibly involving pied-piping, and (ii) wh in-situ characterised by the absence of fronting and the presence of a “relative” complementiser.

#### 4.2.1 Wh ex-situ

Similar to fronting in languages such as English (Pollard and Sag, 1994; Ginzburg and Sag, 2001), wh ex-situ phrases, as well as other fronted material, such as ex-situ focus are licensed in Coptic by a filler-head schema along the lines of Fig. 6: most crucially, this schema identifies the filler daughter’s \(\text{loc}\) information with a singleton element in the head-daughter’s \(\text{t(o)-b(ind)\{sl\{ash\}}\).

Furthermore, the \(\text{t-blu\{que\}}\) value of the head daughter is constrained to be token-identical to the \(\text{inh\{que\}}\) value of the filler daughter, thereby inhibiting percolation of
Figure 5: VP-taking complementiser et

a que dependency from an embedded ex-situ wh construction to the matrix clause. Interrogative illocutionary force can then be determined on the basis of a non-empty τ-block value: if the filler contains a wh word, i.e. a word with a non-empty inhiQue value (see Fig. 7), this value will be present on the inhiQue of the filler daughter, by virtue of the Non-local Feature Principle (Pollard and Sag, 1994). Similarly, if no such wh word is present in the filler, the filler’s inhiQue value will be empty. Thus, as far as the filler and the determination of interrogative force are concerned, Coptic ex-situ wh constructions do not differ much from corresponding constructions in languages such as English.

Where Coptic differs from English, however, is at the bottom of the dependency: as witnessed by the data in sections 2 and 3.2, as well as the discussion in section 4.1 above, the language does not recognise any argument gaps. Besides argument fronting, which involves resumption at the bottom of the dependency, Coptic also features wh and focus fronting of modifiers, in which case there will be a gap at the extraction site.

Following the arguments presented by Levine (2003), we shall assume that adjunct extraction differs from argument extraction in being syntactic, rather than lexical in nature. Thus we shall assume that adjunct gaps are introduced by a syntactic unary rule, along the lines of Fig. 8. Given that filler-head structures equate the entire loc value of the filler with the τ-block of the head daughter, a full local representation is sent down the tree, including both cat and cont information of the filler, thereby ac-
4.2.2 Wh in-situ

Having laid out our analyses of relative clauses and wh ex-situ constructions, we are now in a position to integrate the analysis of in-situ wh questions. To this end, we shall build on the proposal by Johnson and Lappin (1997) who exploit the non-local nature of QUE percolation for an account of in-situ wh question formation in Iraqi Arabic. Essentially, they generalise the QUE feature used for pied-piping in English wh fillers and apply it to non-local percolation from the sentence body.

The particularly compelling property of Coptic relative complementiser lies with the fact that the intricate morphosyntactic patterns regulating the choice of form generalise from relative constructions to their use in wh in-situ question formation, modulo, of course, the definiteness distinction, which we take to be neutralised by the
absence of an antecedent noun in wh in-situ constructions. We shall therefore propose to model the polyfunctionality of these markers by means of the lexical rule depicted in Fig. 9. In essence this rule converts a relative complementiser terminating a SL dependency into a complementiser terminating a QUE dependency.

Since the output of the lexical rule, a wh complementiser, specifies a non-empty T-BQUE value, interrogative illocutionary force will ensue, in much the same way as with overtly dislocated wh fillers. Most importantly, this illocutionary force is fixed at the level of the first complementiser or filler. Finally, conversion of a SL terminating complementiser into a QUE terminating one, already correctly rules out use of *et in wh constructions: since the relative complementiser et represents a local relativisation strategy, devoid of (resumptive) SL dependency, it cannot be converted into a QUE dependency to serve in-situ wh constructions.

4.3 QUE islands

A final issue that has been brought to our attention by Bob Borsley (p.c.) concerns the locality conditions on QUE passing. Johnson and Lappin (1997) observe that island status varies according to the non-local feature involved (SL vs. QUE) and propose a parameterisation of the Non-local Feature Principle to capture these differences. Following previous observations made by Wahba (1991); Ouhalla (1994) and Simpson (1995), they note that in Iraqi Arabic, by contrast, finite clauses are QUE islands, but not SL islands, as witnessed by the data in (24) below.

(24) a. Mona shaafat meno?
    Mona saw whom
    ‘Who did Mona see.’

    b. Mona raadat tijbir Su’ad tisa’ad meno?
    Mona wanted to.force Su’ad to.help who
    ‘Who did Mona want to force Su’ad to help?’

    c. * Mona tsawwarat Ali ishtara sheno?
    Mona thought Ali bought what
d. Sheno tsawwarit Mona Ali ishtara?
   what thought Mona Ali bought
   ‘What did Mona think Ali bought?’ (Johnson and Lappin, 1997)

While matrix scope of wh in-situ phrases contained in non-finite phrases is indeed possible, suggesting non-local QUE passing, matrix scope from wh in-situ phrases embedded in finite clauses is ruled out. Instead, fronting of the wh phrase remains the only option.

Pied-piping in English has been shown to involve unbounded QUE dependencies (Ross, 1967), Ginzburg and Sag (2001) argue that the bottom of a QUE dependency can only involve the least oblique argument. They suggest that all elements of ARG-ST except the first must be restricted to [QUE { }].

In Coptic, however, finite clauses do not constitute islands, neither for resumption, nor for adjunct extraction, nor for wh in-situ, as we have shown above, in contrast to Iraqi Arabic. Similarly, wh in-situ does not seem to observe any restriction with respect to the obliqueness of the argument involved, being attested for subjects and objects alike.

Although more extensive corpus research on the marked pied-piping alternative in Coptic wh-formation is necessary, the data we have so far investigated currently give us very little reason to believe that the level of unboundedness, in particular the
absence of clause-boundedness observed for wh in-situ, will carry over to pied-piping in wh ex-situ constructions: while wh dependencies originating somewhere within the complement of a relative/wh complementiser may easily cross clause boundaries, we hypothesise that wh dependencies within fillers observe somewhat stricter conditions, presumably disallowing wh passing across finite clause boundaries.

Assuming for the sake of the argument that the locality conditions on pied-piping in Coptic do not differ in crucial respects from those observed for English, we would need to parameterise the locality condition according to the distinction between wh pied-piping and wh-in situ, i.e. we need to be able to impose island constraints relative to the origin of the dependency (filler or complement). Since the value of wh is a set (of indices), all it takes is to impose on the elements of the set a distinction between bounded and truly unbounded elements. Technically, this can be done either by cross-classifying the hierarchy of index types along the bounded/unbounded distinction, or else by means of an appropriate feature. Let us settle for the type-based approach: in order to establish a distinction with respect to the origin of the dependency, all it takes is to constrain the wh set of filler daughters to be of type bounded-index. Constraints on wh pied-piping will then be formulated by restricting the wh value of relevant members of arg-st to be a set of unbounded-index. As a result, boundedness will be selectively enforced for filler daughters, i.e. in pied-piping, but not for the complement daughter of a wh complementiser, ensuring true unboundedness of wh in-situ.

5 Conclusion

We have shown in this paper that Coptic observes a blanket ban on argument gaps observable in both relative clauses and wh ex-situ constructions, arguing that the apparent exception regarding zero subjects in et-relatives is of a highly local nature, to be modelled in terms of subcategorisation for a VP complement. Furthermore, we have discussed the local conditioning of complementiser allomorphy that generalises from relatives to in-situ wh constructions, militating for a treatment that systematically derives the latter use from the former. More specifically, we have suggested to model the wh usage of relative complementisers by means of a lexical rule that converts a (resumptive) slash dependency into a wh dependency, enabling us to capture the assignment of interrogative force uniformly across in-situ and ex-situ constructions, while at the same time accounting for complementiser allomorphy.

The Coptic data discussed here are of utmost relevance to a general theory of resumption: since gap strategies are non-existent for arguments in both relatives and ex-situ wh questions and since wh in-situ is actually always available, these data should cast some serious doubts on theories such as Shlonsky’s that picture resumption as a “last resort” rather than a grammatical option in its own right. Finally, the asymmetry between argument resumption and adjunct gaps lends further support for a distinction in terms of lexical and phrasal slash introduction.
References


