# RESIDUAL VERB MOVEMENT IN AN ANALYTIC LANGUAGE: EVIDENCE FROM COPTIC EGYPTIAN

**1.** DERIVING VERB MOVEMENT OPTIONS. Much comparative work has singled out rich agreement, i.e. the discrete morphological representation of person and number features as a key factor motivating verbal head movement to Tense (Roberts 1993; Koeneman & Zeijlstra 2014 a.o.). Rich agreement is also appealed to in order to account for null subjects. This opens up the possibility that one and the same inflectional property underlies two key parameters of crosslinguistic variation. Yet, there is an empirical problem here, as V–to–T raising is attested in non-null-subject languages like French. In Biberauer & Roberts' (2010) [B&R] proposal, the verb movement asymmetries between Germanic and Romance languages are correlated to the Richness of Tense Parameter. Tense-richness is broadly understood in terms of paradigmatic oppositions within a language's Tense/Aspect/Mood system. The disentangling of agreement and tense parameters accommodates the exceptional case of French.

TABLE 1. The typology of null subject and verb raising languages (Biberauer & Roberts 2010)

| Rich agreement | Rich Tense | Null Subjects | V–to–T movement | |
|---|---|---|---|---|
| Yes | Yes | Yes | Yes | Italian, Spanish, European Portuguese |
| No | No | No | No | English, Mainland Scandinavian |
| No | Yes | No | Yes | French, Middle English |
| Yes | No | Yes | No | No clear examples, Icelandic? |

In an AGREE-based model like that of current minimalism, there is no specific reason to connect verb movement to verb inflection. B&R argue that finite verbs in tense–rich languages are presyntactically formed V+T compounds, which are merged under a categorial verbal mode, then remerged under T via re-projection and head movement. Tense-rich languages are predicted reproject up to the level of whatever the non-agreement/non-phi-morphology morphology encodes—Tense/Aspect/Mood (TAM) and their various sub-types. By contrast, in tense-poor language, verb movement is predicted to targets the phase heads v and C. B&R's system is mainly based on European languages of the synthetic–inflectional type. The point of interest in the talk is how languages displaying both analytic and synthetic properties fit into the B&R's typology. Coptic (Ancient Egyptian [Afroasiatic], 3$^{rd}$–12$^{th}$ c. CE) is a language with "mixed" synthetic and analytic morphology in different parts of the grammar.

**2.** TENSE-RICH ANALYTICITY VS TENSE–POOR SYNTHESIS. In the course of long-term morphosyntactic change, Ancient Egyptian shifted from an agglutinative to a largely analytic/isolating language. Sapirian analytic drift did not reach its completion, though, with parts of the anterior synthetic system left intact (Author 2013). Coptic thus exposes a typologically marked split in the verbal-inflectional system between an elaborate inventory of auxiliary TAM particles on the one hand, and a residue of synthetically inflected verb stems on the other hand. Due to the complete absence of subject agreement, the language represents an intermediary case of a non-null subject, tense-rich language, in which tense richness is manifested in the paradigmatically organized TAM particle system. Synthetically inflected lexical verb stems, which encoded a basic eventive–stative opposition, would probably qualify as a tense-poor inflection in B&R's system. Conversely, with a largely unpredictable and varied morphology, synthetic verb inflection is not only highly complex, but also provides the relevant trigger for verb movement to the highest inflectional head of the clause, witness the post-verbal position of negation and lower adverbials. The Coptic situation is the exact mirror image of B&R's proposal, with tense–rich analyticity in the analytic TAM system blocking verb movement, and tense–poor synthetic inflection driving it.

**3.** PARTICLE POSITIONS AND THE CARTOGRAPHY OF THE COPTIC CLAUSE. Coptic is an SVO language with analytic TAMs, which occupy the pre-subject position. This gives rise **T/Aux SVO** surface word order.

(1)    Perfect TAM particle **a** > Full lexical Subject > Verb > full lexical Object

**a**      tə–sophia           **ket**      u–ɛːï              na=s
PERF   DEF.F.SG–wisdom   build.INF   INDEF.SG–house  for=3F.SG
"Wisdom has built a house for herself." (Proverbs 9, 1)

In order to reflect the rich tense system of TAM particles, I propose a complex functional structure for Tense. Presubject TAMs like the Perfect particle **a** are located in an uplifted **T[±PAST]** head position that corresponds in structural height to the Fin° node of the Rizzian (1997) cartography. Compound tenses formed with the Preterit particle **ne** such as the Pluperfect **ne a=f sōtəm** 'he had heard' argue for a higher **T[±PRET]** position, c-commanding **T[±PAST]**. The subject DP is located in the Spec of a **T[±FUT]** head, which represents the highest inflectional head of the clause and marks a future/non-future distinction. **T[±ASP$_{TELIC}$]** represents the temporal-aspectual head. (2) contains the Future tense marker **na**, which precedes the lexical verb **krine** 'to judge' and the differentially marked object **ən–nə–laos** 'the nations'.

(2)    Full lexical subject > Future TAM particle **na** > Verb > Differentially Marked Full lexical Object

pə–t͡ʃoeis            **na**   **krine**      ən–nə–laos
DEF.M.SG–lord     FUT   judge.INF   DIFF.OBJ.M–DEF.PL–people
"The Lord will judge the nations." (Psalm 28, 11)

The resulting template **T(PRET)>T(PAST)>T(FUT)>T(ASP_TELIC)** supports Julien's (2001) hypothesis that which **T(PAST)** and **T(FUT)** are universally contained within the temporal skeleton of the clause.

**4.** RESIDUAL VERB MOVEMENT AND SUBJECT RAISING. Holmberg & Roberts (2013) correlate the loss of verb movement to the rise of analyticity, which goes hand in hand with morphological simplification and erosion. The Coptic scenario is different insofar as high analyticity in the functional (TAM) domain still leaves a niche for verb head movement. This is due to an independently operating parameter, which populates the clausal left periphery with TAM and focus-marking relative particles as well as with borrowed function words and discourse markers from Greek. As shown by (3), the subject **pə–nu:te** 'God', the eventive-inflected verb **tənneu** 'send' and the direct object **pe=f–ʃɛ:re** 'his son' linearly precede the negation adverb **an** 'not', which marks the edge of the v*P domain.

(3) Residual verb movement of eventive verb form and subject and object raising

| ənt | a | pə–nu:te | gar | **tənneu** | pe=f–ʃɛ:re | **an** | e–pə–kosmos … |
|-----|---|----------|-----|------------|-------------|--------|----------------|
| REL | PERF | DEF.M.SG–god | PCL | send.EVENT | DEF.M.SG=3M.SG.POSS-child | NOT | to-DEF.M.SG–world |

"Since God has not sent his son to the world …" (John 3:17)

Having been vacated by its main constituents, the Coptic v*P is left behind as an essentially vacuous structure. What is the fate of this structure? É. Kiss (2008) argues that when the phase head moves into the projecting head of the next higher functional projection, the silent copies of the moved head and their projections are pruned during the Spell-out procedure. Subsequently, the erstwhile hierarchical structure of the v*P collapses in a process of domain flattening. The synchronization of verb movement and the phrasal extraction of the subject and object serves case-licensing purposes. Structural nominative and accusative Case is assigned locally in a specifier–head relation in the relevant **T[±FUT]** and **T[±ASP_TELIC]** projections. The case-licensing motivation is evident with statives like **tɛt** 'be persuaded', which, as adjectival passives, trigger unaccusative object–to–subject switch of the internal argument.

(4) Residual verb movement of stative verb form and unaccusative subject raising

| arɛu | əm | pə–son | **tɛt** | ən–hɛt | **an** | e–ʃatˀe | nəmma=n |
|------|-----|--------|---------|--------|--------|----------|---------|
| perhaps | NEG | DEF.M.SG–brother | persuade.STAT | LINK–heart | NOT | to–talk.INF | to=1PL |

"Perhaps the brother does not agree (lit. is not persuaded of heart) to talk to us." (AP 238, 70:21)

The Minimal Link Condition of Chomsky (1993: 10–13) captures the correlation between residual verb movement and phrasal extraction for Case-licensing purposes: phrasal extraction is strictly local unless it occurs in the domain of verb movement. The tree diagram in (5) further illustrates.

(5) <u>DIAGRAM 1: **Residual verb movement and phrasal extraction in Coptic**</u>
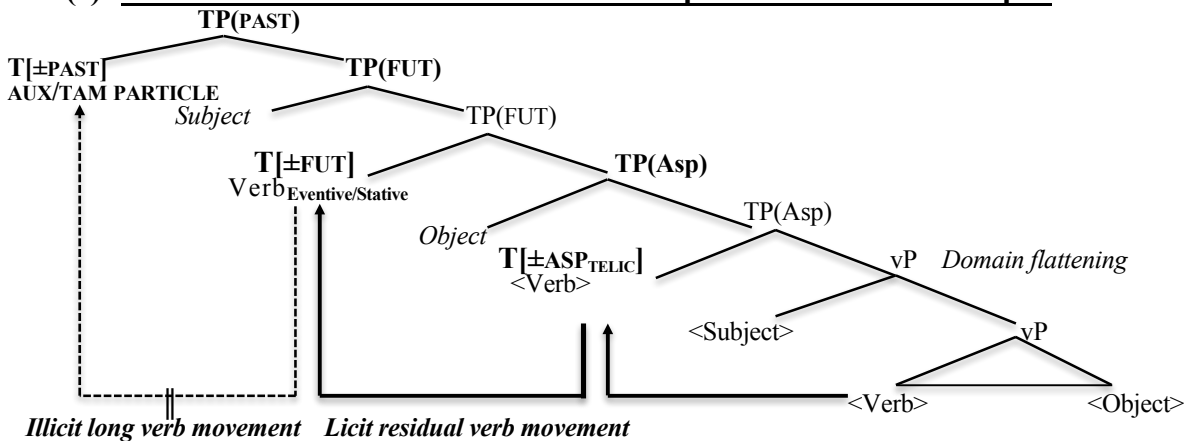


**5.** THEORETICAL IMPLICATIONS. Residual verb movement has interesting theoretical consequences. First, the typology of verb raising languages must include mixed languages like Coptic, in which a synthetic residue enforces movement in an otherwise thoroughly analytic system. Second, residual verb movement bears the ear-mark of V-to-T movement in tense-rich languages. This suggests that verb movement is not sensitive to the number of paradigmatic oppositions, but rather to the internal complexity of movement-driving verbal inflection. Third, the Coptic facts provide potentially significant counterevidence to recent minimalist proposals that verb movement is a post-syntactic PF-phenomenon.

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