# Cliticization: An Epiphenomenon of Tense Projection

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أثارت الضمائر المتصلة انتباها متميزا في اللسانيات الحديثة نظرا لما تتسم به من خاصيات استثنائية، فهي تتميز بصفات تركيبية، وصرفية و صواتية. ويركز هذا المقال على دراسة الجانب التركيبي لهذ المقولة في تشلحيت. حيث يسلط الضوء على موقعها في الجملة والطبيعة التركيبية لمستضيفها. فيفسر، اعتمادا على مجموعة من البراهين، السلوك المحير للضمائر بفرضية مفادها أن بنية الجملة في تشلحيت تتضمن مركبا زمنيا، وأن هذا الأحير هو الذي يستضيف المقولة المعنية بالدراسة.

### Intoduction

In this paper, I investigate particular aspects of cliticization; namely its position in sentences, its order and the nature of its syntactic host. I focus on the accusative, the dative and the oblique clitics in Tashlhiyt Berber (TB). I argue that the apparent asymmetries in clitic behavior can be explained in terms of phrase internal assumptions in the minimalist theory. The main idea I emphasize here is that tense is the component that hosts clitics in TB. This view is consistent with the standard leftward adjunction of head movement derivations.

The paper is organized as follows: section one presents the facts about cliticization in TB as compared to other languages, namely Moroccan Arabic (MA), Literary Arabic (LA) and French (FR). Section two introduces the potential host for clitics. It argues that  $T^{\circ}$  is the restricted and classified head for clitics. Section three deals with the interaction of V-movement and cliticization. Section four shows how the absence of V-movement results in cliticization on other hosts. Section five discusses multiplicity of clitics under the proposal of  $T^{\circ}$  host.

### 1. Clitic Indistinctness

Given their structural representation, it is desirable to claim that clitics are maximal projections. Syntactically, they behave like phrases as they coordinate with phrase categories, namely preceding DPs. This view is supported by the following facts:

#### Hassan Makhad

ss-nu-y sul imkli šš-y-t TB (1) a. cause-cook-I-Perf. Still lunch eat-I-it 'I ultimately cooked lunch and ate it.' b. ištarayt-u tazkiratan wa ?ada\tu-ha LA buy.perf.-I a-ticket and lost-perf.-I-it 'I bought a ticket and lost it.' ṭayyab-t lγda u kli-t-u MA c. cook.perf.-I lunch and eat.perf.-I-it 'I cooked lunch and ate it.' d. j'ai préparé le déjeuner et je l'ai mangé. FR I have prepared the lunch and I it-have eaten

In addition, TB clitics may combine with posterior DPs (2a-b). They also allow clitic doubling constructions (2c). <sup>1</sup>

(2) a. ss-nu-γ-t d rruz cause-cook.Perf.-I-it with rice 'I cooked it with rice.' b. *rwi-γ-t d uγu* mix.perf.-I-it with buttered-milk 'I mixed it with buttered milk.'

c. ajjur izr-a-t urgaz the-moon see-perf.-it the man 'The moon, the man saw.'

'I prepared lunch and ate it.'

Despite the apparent conformity in (1) and (2), clitics have some paradoxical behavior. Consider (3):

(3) a. \*ssnu-γ sul t cause-cook.Perf.-I Still it 'I ultimately cooked it.'

TB

b. \*ištarayt-u akhiran ha buy.perf.-I finally it 'I bought it finally.' LA

<sup>1</sup> This phenomenon is also true in many languages like Italian (Cinque 1990c: 71)

Gianni, lo vedrò domain

Gianni him will-see-I tomorrow

'I will see Gianni tomorrow.'

However unlike other languages, TB does not allow clitic doubling in absence of topicalization

\* *izr-a-t urgaz ajjur* see-perf.-it the man the-moon 'The moon, the man saw.'

c. \*ṭayyabt lγda u kli-t bkri u
 cook.perf.-I lunch and eat.perf.-I early it
 'I cooked lunch and ate it early.'

MA

FR

d. \*j'ai préparé le dîner et j'ai mangé finalement le.
 I have prepared the lunch and I it-have eaten finally it 'I prepared lunch and ate it finally.'

The ungrammaticality of (3) is particularly significant in light of the fact that I am dealing with here. On the basis of (3), clitics do not have syntactic (or morphological) autonomy as that of independent words/ phrases (cf. Kayne (1975)). They cannot appear in the normal syntactic position of a corresponding word of their category. Accordingly, they cannot stand alone as the ungrammaticality of (3) shows. Logically, comparing (1) and (3), one may conclude that clitics originate as syntactic phrases and operate like bound morphemes<sup>1</sup>; especially that they must be realized as clear affixes.

Nonetheless, unlike inflectional affixes, clitics are phonologically not restricted to a single host. Their hosts are unpredictable as they attach to different heads in TB.

(4) a). zṛ-i-y-t (Verb) b). rad-t zṛ- y (Modal/Auxiliary)
See-perf.-I-him will-him see-I
'I saw him.' I will see him.'

c). ur-t zṛ-i-y (Negation) d). is-t zṛ-i-y (Complimentizer) not-him see-perf.-I that-him see-perf.-I 'I didn't see him.'

The immediate question that the data above raise is: how do clitics attach to their host? Basically, there are two proposals in literature. The first claim is represented in Kayne (1975; 1987) (and Jaeggli (1986)). Kayne argues that clitics are basegenerated in argument positions. Subsequently, they rise to *Infl* through syntactic movements. Actually, this proposal is assumed in many works on Berber linguistics: (Ouhalla (1988), Bourkhis (1998)), among others. For instance, Boukhris analyzes clitics as DP heads that do not merge with a complement NP². Being affixal, she proposes that clitics move upwards through Spec positions to end up on a V host, Aspect, Neg. or Comp³.

Host-CL<sub>Dat</sub>-CL<sub>Acc</sub>-CL<sub>Obl</sub>

<sup>&</sup>lt;sup>1</sup> Chomsky (1995: 249) considers clitics to be XPs. He proposes that they move like that in syntax. Yet he claims that head-adjunction only happens at their last stage in the derivations.

<sup>&</sup>lt;sup>2</sup> Despite its desirability, generating a specifier position for a headless phrase is theoretically and empirically questionable. An empty head may only project if it is necessary to host some overtly raised category that has features requiring checking/agree.

<sup>&</sup>lt;sup>3</sup> If this claim were true Berber would be expected to have proclitics and not enclitics. Actually, the empirical facts of TB show that it is an enclitic language, as the order is fixed, like in:

The second account is that of Borer (1984), Jamari (1992), Sportiche (1993) and Uriagareka (1995). Borer argues that cliticisation does not involve syntactic movements as clitics are generated in *Infl* and are coindixed with a small *pro* in argument positions. She takes clitic doubling and properties of chains as a basis for her claim. She proposes that clitics are, in fact, agreement markers. Within the same line of reasoning, Jamari (ibid) suggests that Arabic clitics are either agreement markers or incorporated pronominals. The latter, for him, are bound pronouns which occupy A-positions and incorporate into their hosts at PF. Contradictorily, he analyzes agreement markers as affixes which occupy Apositions and incorporate to their host either in syntax or the lexicon. I assume the central view of these claims in this paper.

So far, it is firmly established, on empirical grounds, that clitics are ambiguous categories. They have dual properties. They are XPs as they coordinate with XPs. Simultaneously, they show affixal/head properties namely that they attach to hosts.

# 2. T° as the Host Category

Given the data (1-4) above, I propose that clitics are base-generated in Tense<sup>1</sup>. Obviously, tense in TB is a null category, in the sense that it does not correspond to an overt morphological head. Nonetheless, it projects syntactically (cf. Makhad 1996, 2004, 2012). This syntactic projection is imposed by the temporal features of the head T°. Consider (5).

- (5) a). zr-i-γ-t sul idgam/\*azkka \*sul zr-i-v-t idgam b). See-perf.I-him still yesterday/tomorrow 'I ultimately saw him yesterday.'
- \*jadlli zṛ-i-γ-t idgam zr-i-y-t jadlli idgam/\*azkka c). d). See-perf.-I-him already vesterday/tomorrow 'I already saw him yesterday.'

The sentences in (5a) and (5c) characterize verb movement to  $T^{\circ}$ . One of the long standing arguments in support of this process is adverb placement. The presence of the positive polarity adverbs (PPA) (sul & jadlli) to the right of the verb in (5a) and (5c) indicates v-movement to T (cf. Makhad (ibid)). In this sense, lack of overt tense morphology in TB does not indicate absence of a tense projection. The clauses in (5a) and (5c) are finite. Intuitively, they correspond to past tense meaning. This proposal is justified by the correlation between the verb category and the presence of the temporal adverb idgam. In both sentences, the temporal adverb specifies the time interval<sup>2</sup> when the event occurred. This specification is

However, it is hard to explain the manner of this operation as well as its motivation.

<sup>&</sup>lt;sup>1</sup> On the basis of the facts in (1-4), clitics may overtly incorporate to T° after merging syntactic phrases together.

 $<sup>[</sup>_{TP} T^{\circ} [_{MP} M [_{AspP} Asp [_{vP} v [_{VP} V Cl ]]]]]$ 

<sup>&</sup>lt;sup>2</sup> It is a time before the moment of speech.

understood in terms of compatibility between the tense carried by the verb in T and the temporal meaning indicated by the adverbial *idgam*.

Accordingly, the licensing of the adverbial form *idgam* indicates presence of a tense element in (5a) and (5c). Based on empirical generalizations, the licensing imposes that the adverb of time must reflect the temporal values of the tense in the string. This is captured in terms of AGREE; where the adverb of time matches the temporal value of T. Incompatibility thus results in ungrammaticality. This condition explains the unacceptability of (5a) and (5c) in case *idgam* is replaced by *azkka*. The latter is obviously incompatible with the past tense peculiarity of T in (5).

If this analysis is true, it is expected that failure of V-to-T movement results in ungrammaticality. This expectation is fulfilled as (5b) and (5d) indicate. Note that the verb is to the left of the PPA (*sul & jadlli*). This arrangement indicates absence of V-to-T raising. The sentences are thus intolerable in the system. The reason is that the head T has an unvalued strong V-feature. The latter is uninterpretable, unless a [+V] category adjoins to T°. Likewise, V has an unvalued Tense feature that needs to be valued in terms of a probe (T°) and a goal (V). That is why T attracts the verb to move overtly before spell-out, as is the situation in (5a) and (5c).

Thus there is no doubt that  $T^{\circ}$  is the locus of clitics in TB. This view is based on the interaction between V-movement and clitic attachments. Encliticization results as an effect of V-raising to T. This explains the linear order of clitics with regards to their host.

## 3. Cliticization and V-to-T

In terms of the suggestion put forward here, V-to-T adjunction takes place after T merges with whatever functional head below/adiacent to it. Assuming the Linear Correspondence Axiom (LCA) (kavne 1994)<sup>1</sup>. I propose that T° is headed by clitics prior to any V-movement. In this sense, clitics are base-generated in T°. The basic structural representation of tense in TB is as follows:

(6) 
$$[_{TP} [_{T^{\circ}} [_{T^{\vee}} [_{\mu V}]] [_{T^{\circ}} [_{+D}] CL.]]]$$

The illustration in (6) indicates that the head T° in TB is actually a dual head with two distinct features: an unvalued V-feature and a D-feature<sup>2</sup>. Cliticization takes

i-ttaw-tš-a uyrum

it-pass.-eat-perf. The-bread (construct state)

"The bread was eaten."

The object in this example has acquired the properties of a subject. This may result from the D-features of  $T^0$ .

<sup>&</sup>lt;sup>1</sup> Kayne (1994) argues that the linear precedence of sentential categories is based on structural hierarchy.

<sup>&</sup>lt;sup>2</sup> This actually may explain the construct state derivation of passives in TB

place on the D slot of T°. It activates tense projection to merge with contiguous phrases.

An intuition must be put across here. Cliticization, in this sense, induces a semantic association between a clitic and the position of its nonclitic counterpart. This correlation is caused by sharing semantic features. As a consequence of presence of such features a reconstruction operation may be triggered at LF. At this level, clitics are interpreted in the position of their corresponding nonclitic items. At the same time, I must stress that cliticization is spelled out in T<sup>0</sup> at PF. This line of thinking is totally in agreement with the empirical reality of the language.

One strong argument in support of this analysis comes from the ordering of the verb and the clitic in (5a) for example. Note that the verb is to the left of the clitic. This situation indicates that V-movement raises the verb obligatorily into the V slot of T°. According to LCA, this is the right order to be generated by V-adjunction to

This approach reconsiders the *Clitic Placement Condition*<sup>2</sup> proposed in Ouhalla (1988) and assumed in many works on clitics. At the same time, it explains cliticization in other languages, namely LA and MA. The examples in (1b) and (1c) are accounted for on the basis of (6). In both cases, the verbs left-adjoin to the clitics base-generated in T<sup>0</sup>. V-movement results in V-CL order.

This consideration of facts receives more practical support from infinitival structures. Consider (7), as compared to (5c).

(7) ri-γ ad-t jadlli zr-γ want-I that-him previously see-I 'I previously wanted to see him.'

The sentence in (7) is a form of a control structure<sup>3</sup>. Control structures are widely claimed to be non-finite clauses. Note that the subordinate verb zr is in the aorist/infinitive form<sup>4</sup>. Being so it does not carry temporal features. Thus it does not overtly rise to T°, as it is spelled-out to the right of the PPA jadlli. Yet the presence of the accusative clitic -t denotes that the lower clause contains a TP. Certainly the head of the latter does not have V-features. Thus the verb is not supposed to rise up targeting T°.

Clitics must attach to the highest head element in a clause Ouhalla (1988:35)

<sup>&</sup>lt;sup>1</sup> Note that clitic movement into T° would always generate procliticization which goes against the empirical reality of the language.

<sup>&</sup>lt;sup>2</sup> Clitic Placement Condition

<sup>&</sup>lt;sup>3</sup> Chomsky (1999) calls these structures defective clauses because they are TPs and not CPs.

<sup>&</sup>lt;sup>4</sup>The Aorist is assumed in TB literature to be the less inflected or the infinitive form of the verb (cf. Makhad 1996).

<sup>&</sup>lt;sup>5</sup> An interesting argument that supports TP projection in (7) comes from coordination. The assumption is that only the same kinds of constituents can be conjoined. On the basis of this claim consider:

Comparison of (7) with (5c) makes the argument clearer. The first observation that differentiates (7) from (5c) is that the verb  $z\underline{r}$  is to the right of jadlli in (7), while it is to its left in (5c). In light of the proposal in (6), the verb  $z\underline{r}$ , in (7), does not move to  $T^{\circ}$  for another reason. I imagine that the V-part of  $T^{\circ}$  is not specified for a V feature that requires compatibility or interpretation spell-out  $^{1}$ . Yet the D-part projects and it is headed by the accusative clitic.

If this view is right, it is expected that presence of clitics and failure of overt V-to-T result in two things: ungrammaticality or clitic attachment onto other elements in the clause. The first part of the expectation is true, as it is implied in (3) above. Clitic stranding is not allowed. The second part is also right. However it needs an explanation. Given that the verb is unable to move to  $T^{\circ}$ , the accusative clitic remains unattached to a host. In view of the fact that a clitic is affixal, it must rise and adjoin to the complementizer above it. If this is true, the derivation generates a sentence like (8).

(8). \*ri-γ t-ad jadlli zṛ- γ want-I him-that previously see-I 'I previously wanted to see him.'

However, (8) is ungrammatical. Its unacceptability stems from the fact that TB is an encliticization language. Procliticization is not allowed<sup>2</sup>. Thus (8) and (4) above essentially impose that clitic movement is empirically unattested in TB.

In contrast, FR allows clitic movement. Obviously, it also allows V-movement. The verb moves into T°, because it has T-features to check and T° has V-features to match. I suppose that FR has a version of (6) in the following way:

(9) 
$$\left[ _{TP} \left[ _{T^{\circ}} \left[ _{T^{\circ} \left[ +D \right]} CL. \right] \left[ _{T^{\circ} \left[ \mu V \right]} \right] \right] \right]$$

In accordance with (9), FR verbs move from their base position upwards to  $T^{\circ}_{[V]}$ . Similarly, since FR is a proclitic language, clitics rise from argument positions targeting  $[T^{\circ}_{[D]}]$ . This adjunction is in accordance with LCA, as expected. Consider (10)

(10) a. j'ai déjà vu le professeur.
b. je l'ai déjà vu
I have already seen the professor
I him-have already seen
'I have seen him.'

want-I that-him previously see-I but HE-write(imp.)-to-us formerly ALLAH like-this

The italicized clause in (i) is definitely a TP. Its verb is located to the left of the adverb *jadlli*, which indicates V-raising to T. This operation results in encliticization on V.

<sup>(</sup>i) ri-γ ad-t jadlli ẓṛ- γ mašš [i-kttb-aɣ jadlli rbbi ɣika]

<sup>&#</sup>x27;I previously wanted to see him, but ALLAH prescribed for us not to see each other.'

<sup>&</sup>lt;sup>1</sup> The V may adjoin to T at LF or maybe the V part of T is deleted by lack of semantic contribution.

<sup>&</sup>lt;sup>2</sup> See footnote 5 above.

In (10), the auxiliary verb *avoir* is unquestionably in  $T^{\circ}$ , as it appears to the left of the adverb  $d\acute{e}j\grave{a}$ . Note that the accusative clitic  $le^1$  in (10b) is to the left of the verb in T. This fact supports overt clitic adjunction to T in FR.

The situation in TB is different. To illustrate this shift of perspective reflect on the contrast between (7) and (8). I propose that the clitic in (7) can only satisfy its affixal condition at the PF level. Basically, the derivation of (7) happens by projecting a TP. The latter merges with the complementizer *ad* projecting a CP<sup>2</sup>. The clitic heading T° needs a host. As V-to-T does not overtly apply, due to the absence of T-features on the verb, the structure is filtered to the PF branch.

I suppose that at PF the hierarchy of syntax is no longer respected. Phonological constraints have to determine the phonological spell-out of the sentence. It is during this moment that the phonological shape of sentential units is provided. Supposedly, the PF parsing detects the clitic in (7) as an abandoned element that needs a host. This inspection defines the closest element to the left as a potential host. The closer element in (7) is *ad*. The linking thus takes place and *ad* hosts the clitic by *PF* concatenations.

One legitimate argument that confirms this analysis comes from assimilation rules in TB. The PF spell-out of the sentence in (7) is like  $(11)^3$ .

Note that ad is realized as at- when the clitic -t combines with it. This combination results in a total regressive assimilation rule where the d component of the complementizer takes up the voiceless property of the clitic. This behavior definitely requires adjacency<sup>4</sup>. This practice is certainly the outcome of the fact that the two constituents form a prosodic unit at the PF level<sup>5</sup>.

Thus far, a clitic incorporates into a (tensed) verb if the latter rises to left-adjoin to  $T^{\circ}$ ; otherwise ungrammaticality results, as clitics need a (syntactic/phonological) host. A clitic attaches to complemetizer if the verb is unable or does not need to rise to  $T^{\circ}$ . In this case, cliticisation results as a PF operation.

(ii) ad-nn jašk ===== a**n**-nn jašk
That-space-particle he-come

<sup>&</sup>lt;sup>1</sup> It realized as "1" as it is adjacent to a vowel.

<sup>&</sup>lt;sup>2</sup> Makhad (2004:203-4) suggests that ad heads a modal phrase that merges with T/TP. In both analyses the desired goal is reached.

<sup>&</sup>lt;sup>3</sup> Unnecessary details are omitted.

<sup>&</sup>lt;sup>4</sup> This operation is very active in TB as in:

<sup>(</sup>i) ad i-ddu ====== a**j**-jddu that he-go

<sup>&</sup>lt;sup>5</sup> This analysis adequately accounts for (4d) above.

### 4. V-to-T Prohibition

Setting sights back on the sentences in (4b) and (4c) confirms the analysis above. The sentences are repeated here as (12a-b) respectively.

(12) a). rad-t zṛ- y b). ur-t zṛ-i-y will-him see-I not-him see-perf.-I 'I will see him.'

A quick inspection of (12) indicates that the two verbs zr have not moved to tense. Assuming the use of the PPA test, (12) becomes (13) respectively.

(13) a).  $rad-t sul zr-\gamma$  b).  $ur-t sul zr-i-\gamma$ 

The verbs in (13) have certainly not moved to T, as they appear to the left of the adverb *sul*. Starting with (12a) - (and 13a) -, the sentence has a future tense reference. In TB, future is expressed by the use of the modal form *rad*. Note that *rad* in - (12a) and - (13a) is located to the left of the PPA adverb and it also hosts the clitic. At the same time, the main verb is in the aorist form. These observations suggest that V-to-T is not allowed in these strings.

A logical explanation that bans verb rising in (12a) and (13a) is the fact that the modal is positioned higher in structure than the verb is. This presence above VP allows *rad* to rise to T° by the *Minimal Link Condition* (*MLC*)<sup>1</sup>. In doing so it is permitted to host the clitic and encliticization takes place. The same reasoning is true with regards to (12b) and (13b), in the sense that negation (NEG) prevents overt V-movement. This detail is one classical argument that has been offered in favor of a NegP projection in various languages. Note that the verb in (12b) and (13b) has the same form that is in (5c). In the latter example, absence of any blocking category allows V-to-T. Yet occurrence of NEG in (12b) and (13b) has a blocking effect over verb movement. Nonetheless the sentences are grammatical.

This is so because NEG in TB originates in a position below TP. Then it moves for scope reasons to left adjoin to TP<sup>2</sup>. Consider (14).

- (14) a. izz is rad sul ur t-ẓṛ-t lḥšum?
  is-it that tns still not you-see-you the-children
  'Will you still not see the children?'
  - b. izz is ur rad sul t-zṛ-t lḥšum?
    is-it that not tns still you-see-you the-children
    'Won't you still see the children?'

 $\alpha$  can raise to target **K** only if there is no legitimate operation Move  $\beta$  targeting **K**, where  $\beta$  is closer to **K**. (Chomsky 1995:296)

<sup>2</sup> See Makhad (1996), (2004), (2012).

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<sup>&</sup>lt;sup>1</sup> Minimal Link Condition

c. izz is rad-ttn sul ur-(\*-ttn) t-zṛ-t?
is-it that tns-them still not-(them) you-see-you
'Won't you still see them?'

A detailed examination of (14) reveals empirical support to my analysis. In (14a) NEG is between the modal rad and the verb zr. Certainly, rad occupies  $T^{\circ}$ , after movement from ModP. This is evidenced by location to the left of the PPA sul. Note that NEG is to the right of the PPA. In this position, it can only have narrow scope. Note that in (14a) negativity is restricted only to the verb<sup>1</sup>. This restriction is implied in the transliteration associated with it. In (14b), NEG is positioned to the left of the modal in  $T^{\circ}$ . What is negated in this instance is the whole proposition. It is the *future seeing of the children* that is affected by the presence of ur to the left of the modal in  $T^{\circ}$ .

The sentence in (14c) shows two interesting ideas that are in accordance with my general claim. First, when NEG has narrow scope, it cannot host clitics. This is shown by the ungrammaticality implied in (14c). However, when NEG has wide scope, it hosts clitics. This is exemplified by (12b) and (13b). As mentioned above, the presence of NEG in (12b) and (13b) blocks V-movement<sup>2</sup>, in terms MLC. Similarly, the presence of a clitic suggests that TP projects. Yet the clitic remains stranding. At the same time, NEG adjoins to TP for wide scope requirements<sup>3</sup>. This adjunction makes it a potential host at the PF level, akin to the situation with the complementizer *ad* in (7) and (4d) above.

The second implication of (14c), if compared with (12b) and (13b), is that presence of a modal form precludes wide scope NEG from hosting a clitic. This inference is reasonably accounted for. Consider (15)

izz is ur rad-ttn sul t-zṛ-t?
is-it that not tns-them still you-see-you
'Won't you still see them?'

In (15), tense projects headed by the clitic ttn. The presence of the modal form rad, as well as NEG, prevents V-movement to left-adjoin to the clitic. Since the modal has T-fatures that  $T^{\circ}$  needs to match, rad raises to  $T^{\circ}$ . NEG left adjoins to TP. Cliticization takes place as it is supposed to happen. This is sufficiently precise to make the proposal adequately satisfactory.

On the basis of the hypothesis that clitics are base-generated in tense, I have demonstrated that both modals and NEG block V-movement. Modals left-adjoin to  $T^{\circ}$  overtly, thus end up hosting clitics. Absence of a modal and presence of a (wide scope) NEG blocks V-movement and negation hosts clitics at PF.

<sup>&</sup>lt;sup>1</sup> This is equivalent to negative focus in some English sentences like: I will give you not a single penny!

<sup>&</sup>lt;sup>2</sup> V-movement will have to apply at LF, in such instances.

<sup>&</sup>lt;sup>3</sup> Note that NEG in (14b) is between the complementizer (C) and tense (T).

# 5. Multiple Clitics

The last issue I intend to draw attention to here is the topic of multiple clitics alluded to in footnote number (4) above. Consider the sentences in (16).

(16)

- a). *i-ṛṛm urgaz taggurt i-tmyart s-tsarut*He-open.perf. The\_man the-door-fem. To-the-lady with-the-key
  'The man opened the door to the lady with a key.'
- b). *i-ṛẓm-a-s-tt-s-rs* he-open.perf.-to-her-it-with-it 'He opened it to her with it.'
- c). rad--a-s-tt-s-rs i-ṛṛm tns- to-her-it-with-it he-open 'He will open it to her with it.'
- d). *ur--a-s-tt-s-rs i-ṛẓm* not-to-her-it-with-it he-open.perf. 'He did not open it to her with it.'
- e). ad--a-s-tt-s-rs i-ṛṛm that-to-her-it-with-it he-open '(I want) that he opens it to her with it.'
- f). *is--a-s-tt-s-rs i-ṛẓm?*is-it- to-her-it-with-it he-open.perf.
  'Did he open it to her with it?'

A simple reflection upon the sentences in (16) makes it unmistakably evident that they abide by the representation in (6). In essence, encliticization in (16) is derived under the assumption that the cluster forms an undividable morphosyntactic entity, as in  $(17)^1$ .

- (1) a. Fki-γ jadlli taglajt i-TTalb s-turrgsa

  TB

  Give(perf.)-I previously the-egg to-the-religious-scholar with-disguise

  "I gave the religious scholar an egg secretly."
  - b. Fki-γ-as-tt-s-rs jadlli
  - c. Fki-γ-as-tt jadlli s-rs
- (2) a. ?a Tajt-u saDaqatan li-lmiskini bi-ljumna LA Give(perf.)-I charity to-the-beggar with-the-right-hand "I gave the beggar charity with my right hand"
  - b. ?a ?Tajt-u-ha la-hu bi-ha give-I\_it to-him with-it
- (3) a. kli-t lmarqa b-lxubz MA
  Eat(perf.)-I the-stew with-bread
  "I ate the stew with/using bread."
  - b. kli-t-ha b-ih

<sup>&</sup>lt;sup>1</sup> The oblique is between parentheses because it is optional in the cluster. It may be there as it may not. This simply means that the language is undergoing a historical development akin to LA and MA, where a preposition and its complement clitic form an independent category not needing a host. Consider these examples:

$$(17) -- [CL_{Dat}-CL_{Acc}-(CL_{Obl})]$$

According to the hypothesis in (17), (16) is easily accounted for straightforwardly. In (16b) and (16c), the verb and the modal, respectively, left-adjoin to the clitic cluster in T°. In (16d-f), v-movement is unavailable. In (16d), it is blocked by NEG, which rises to link up with TP for scope considerations. Being adjacent, clitic-hosting comes out as a PF obligation. In (16e-f), v-raising is impossible, as the verb does not carry any temporal features that need matching. Similar to (16d), the clitic cluster ends up on the complementizer at PF.

One reason why these elements form a cluster is the impracticality of deriving them otherwise. Suppose that the clitics are base-generated in the position of their corresponding categories in (16a). In this case, before the final spell-out the structure would look like (18).

(18) *i-rzm urgaz tt a-s s-rs*He-open-perf. The\_man it to-her with-it
'The man opened it to her with it.'

Trying any combinations to derive the right order as in (16b) is almost unattainable. Note that the dative *a-s* must be the closest to the host. Yet its position in (18) is between the accusative *tt* and the oblique *s-rs*. Not only that, but take notice of the fact that any movement derivation results obligatorily in procliticization, which is banned in TB. As a consequence, the clitics in (16) form one component cluster that is impenetrable to any adjustments <sup>1</sup>.

One argument that supports this view comes from the impossibility of any conversion of (17). The order is fixed and does not allow any alteration. Thus ungrammaticality is unsurprisingly predicted, when the fixed order of clitics is altered in (16b).

- (19) a). \*i-ṛẓm-a-s-s-rs-tt b).\*i-ṛẓm-tt-a-s-s-rs he-open(perf.)-to-her-with-it he-open(perf.)-it-to-her-with-it 'He opened it to her with it.'
- c).\*i-ṛẓm-tt-s-rs-a-s d).\*i-ṛẓm-s-rs-tt-a-s he-open(perf.)-it-with-it-to-her he-open(perf.)-with-it-it-to-her

#### eat-I-it with-it

In (1b-c), the oblique clitic can either be attached or remain free. In (2b), both the oblique and the dative are free categories. In (3b), the oblique is again free. I conclude that in LA and MA, the oblique, as well as the dative, are free categories. In TB, the oblique is becoming a free element. Yet it has two forms. If it is a clitic, it is realized as one unit, like *srs*. If it is an independent category, it takes the form of a prepositional Phrase (PP). Thus it is realized as *s-rs*, where the nominal form cliticizes onto the prepositional head. Nonetheless, I use the form *s-rs* for both to make the transliteration accessible.

<sup>1</sup> This constraint is understood in terms of Inclusiveness Condition and Phase Impenetrability Condition. Roughly my understanding of both conditions is that they ban access to derived syntactic units

As expected, the sentences in (19) are ungrammatical for the simple reasons that the internal structure of the order in (17) is not respected. In (19a), the oblique is ordered to the left of the accusative. The right order is quite the opposite. In (19b), the accusative is placed to the left of the dative. This order is completely unacceptable. The accusative must absolutely be placed to the right of the dative. In (19c), the dative is arranged after both the accusative and the oblique. This is fully against the empirical facts of the language. The same reasoning is true with regards to (19d). The dative and the oblique are rearranged with respect to their relative positions. This reordering is practically not allowed. As a matter of fact, the order in (17) is extremely fixed. Undeniably, this unchanging sequence is an indication that multiple clitics form a stable and inaccessible cluster.

Another argument in favor of the authenticity and accuracy of (17) comes from modifications. Basically, nouns allow adjectival modifications under convenient conditions. In this case, it is expected that the nominal forms in (16a) can be modified by appropriate adjectives, as in (19).

(19) *i-ṛṛm taggurt izgzawn i-tmyart igzzuln s-tsarut iwrrayn*He-open.perf. the-door-fem. Blue To-the-lady short with-the-key yellow 'He opened the blue door to the short lady with the yellow key.'

However, when cliticization occurs, adjectives are disallowed in the structure. Consider:

(20) *i-ṛṛm-a-s-tt-s-rs* (\*izgzawn) (\* igzzuln) (\* iwrraγn) he-open(perf.)-to-her-it-with-it (Blue) (short) (yellow) 'He opened it to her with it.'

The prohibition of adjectives in (20) can only be understood, if the derived clitics are perceived as a particular cluster inaccessible for external modification.

Within the same line of thoughts, it is noticeable that the verb, when hosting clitics, may be modified by an appropriate adverb. Consider (21).

(21)

a. *i-ṛṛm taggurt izgzawn i-tmyart igzzuln s-tsarut iwrrayn d-ulggud*He-open.perf. the-door blue to-the-lady short with-the-key yellow with-immediate. 'He immediately opened the blue door to the short lady with the yellow key.'

b. *i-ṛẓm-a-s-tt-s-rs d-ulggud* he-open(perf.)-to-her-it-with-it with-immediate. 'He immediately opened it to her with it.'

Unlike the presence of the adjectives in (19-20), adverbs are omnipresent in (21) whether cliticization occurs or not. This is very significant. Obviously, (21a) is expected to be acceptable. The adverb of manner *d-ulggud* modifies the verb *rzm*, despite their being dissociated by other categories. Similarly, the adverb in (21b) is still capable of modifying the verb, despite the presence of clitics. This presupposes recognition of the verb as a unit and the clitics as another entity, prior to merge. Once combinations take place, the verb and the clitics become a single component.

This view takes the clitic cluster as a unit for granted. Another argument in favor of this claim comes from coordination.

(22) a. i-ṛẓm\*(-a-s-tt-s-rs) i-ṛgwl\*(-a-s-tt-s-rs) day he-open(perf.)-to-her-it-with-it he-lock(perf.)-to-her-it-with-it again. 'He opened and locked it to her with it again.'

b. *i-ṛẓm-a-s-tt-s-rs i-rgwl-a-s-tt-s-rs s-ttjawil (day).* he-open(perf.)-to-her-it-with-it he-lock(perf.)-to-her-it-with-it. with-care (again)

'He carefully opened and locked it to her with it (again).'

c. *is--a-s-tt-s-rs i-ṛẓm ndd is-a-s-tt-s-rs i-rgl*? is-it-to-her-it-with-it he-open or is-it-to-her-it-with-it he-lock. 'Did he open or lock it to her with it.'

Coordination essentially requires association of two equal categories. In this sense, the coordinated forms in (22a) are two TPs. The coordinating conjunction is not phonetically realized in this example. It may be inferred from the presence of the adverb  $da\gamma$ . Moreover, note that the gapping that is shown in the English translation is impossible in TB, as is indicated by the stars. This intolerability results from the fact that the verb and the cliticized elements form a unit once they merge in T°. This view is supported by the adverbial modification in (22b). The adverb, s-ttjawil, modifies both clauses. Any interpretation in contradiction of such reading leads to ungrammaticality. The appropriateness of this explanation is further justified by (22c). Coordination here is indicated by the conjunction ndd. The coordinated forms in (22c) are two CPs. All the clitics are on the Cs, due to unavailability of V-movement to T°.

I have demonstrated that multiple clitics form a cluster, as they are merged in  $T^{\circ}$ . I have shown that it is impossible to derive them otherwise. On the basis of data, they are established to have a fixed order that is not open for any alteration. I have proven that any modification of the arrangement in (17) results in ungrammaticality. This makes it evident that they form a single component.

### Conclusion

I conclude that cliticization in TB either takes place overtly in syntax or is realized as a PF requirement on clitics to have hosts. Overall, I have demonstrated that tense is the category that serves as a host for clitics. I have argued that despite the apparent multiple hosts for clitics, tense remains the only category that hosts them. Thus the apparent numerous heads that connect with clitics result as a trickery interplay between sentential elements. On the basis of this analysis, the paper gives a unified explanation of clitic behavior in TB. The proposal can be extended to account for a number of languages, namely LA, MA and FR. So tense –periphrastic or lexical- is a universal category that explains the behavior of cliticization.

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