



Universiteit  
Leiden  
The Netherlands

## Clitic fronting in Tamashek (Mali Tuareg)

Kossmann, M.G.

### Citation

Kossmann, M. G. (2024). Clitic fronting in Tamashek (Mali Tuareg). *Langues Et Littératures*, 29(1), 1-39. Retrieved from <https://hdl.handle.net/1887/4103720>

Version: Publisher's Version

License: [Licensed under Article 25fa Copyright Act/Law \(Amendment Taverne\)](#)

Downloaded from: <https://hdl.handle.net/1887/4103720>

**Note:** To cite this publication please use the final published version (if applicable).

## Clitic fronting in Tamashek (Mali Tuareg)\*

Maarten Kossmann  
Universiteit Leiden

### Abstract

This article provides a comprehensive overview of the positioning of verbal clitics (“Satellites”) in Tamashek, the Tuareg language of Mali. Based on the analysis of published texts, it complements work by Jeffrey Heath, and aims to provide a more exhaustive description of the system. Like in most other varieties of Amazigh, Tamashek verbal clitics can come both before and after the verb. Similar conditions are found as elsewhere, but the details of the system are different. Thus, grammatical person plays a role in the position of the clitics relative to each other. Moreover, in contexts where the clitics are normally preverbal, directional clitics can have double expression, both before, and after the verb. Finally, the article provides a fine-grained description of what happens when several conditions for clitic fronting apply in one single phrase, a subject that has not been studied in detail before.

**Received:** January 31, 2023

**Revised:** March 7, 2024

**Accepted:** May 20, 2024

### Keywords

Clitics; Amazigh  
linguistics; Tuareg;  
Tamashek; Satellite  
fronting

---

\* I would like to thank Evgeniya Gutova for comments on an earlier version of this article. I greatly profited from the remarks by the editors and two anonymous reviewers. Of course, all errors and flaws in the argument are to be blamed on the author.



m.g.kossmann@hum.leidenuniv.nl



<https://orcid.org/0000-0002-7878-5544>

## 1. Introduction

Amazigh languages (also known as Berber) show large-scale positional variation in verbal clitics (“Satellites”), which can occur in preverbal and in postverbal position. Generally speaking, the conditions for the preverbal position are clear-cut, and the postverbal position can be considered a kind of default option. Therefore, it makes sense to speak of fronting. In Amazigh studies, following Lionel Galand, the concerned elements are generally known as Satellites, because they orbit around the verb. The fronting process is called Attraction (e.g., Chaker, 1983, p. 139), and the syntactic contexts where it takes place will be called Attraction contexts.

In the large majority of Amazigh varieties, the rules governing Attraction and the respective order of the Satellites are similar, and rather strict and straightforward.<sup>1</sup> Typically, the Satellites are (in this order):

1. Direct Object pronouns (DO)
2. Indirect Object pronouns (IO)
3. Directional elements (DIR)
4. Prepositions with a pronominal suffix (PRSF)

Example:<sup>2</sup>

---

<sup>1</sup> This is not the place to provide a full review of the literature on clitics in Amazigh in general. One of the most comprehensive studies of a highly regular system is Dell & Elmedlaoui (1989) and (1991) on Tashelhiyt. While the subject has never been high on the agenda in French structuralist accounts of Amazigh languages, it plays a major role in generativist syntactic analyses – for example, Ouhalla (1989) (and many other works by this author); Boukhris (2013); Ouali (2011); El Hankari (2013). For a recent overview of the literature, see Gutova (2021, p. 573ff.).

<sup>2</sup> Transcriptions follow IPA standards, except for the following conventions, mostly based on official orthography; where Heath (2005a, 2005b, 2006) has a different convention this is also provided. ǎ = [ɛ] (Heath: <æ>); j = [dʒ] ~ [ʃ] ~ [gʲ]; š = [ʃ]; ž = [ʒ]. Pharyngealization of consonants is marked by a subscript dot, e.g., ẓ = [ʒʕ] (Heath <ẓ>). The transcriptions of the sources have been adapted to these conventions. In a few examples from Casajus (1985), some further corrections have been undertaken; see the author’s comment on his earlier transcriptions in Albaka & Casajus (1992, p. 19). In examples from Heath (2005a, 2005b), his accentual notation has been maintained. The accents /ǎ/, /ạ̌/ and /ạ̣̌/ denote different degrees of phonological predictability (see Heath 2005a, p. 81ff.), and do not represent different realizations. The other sources do not provide information about the accent. The accent has oppositional value in marking the difference between Perfectives and (shortened) Resultatives. In relevant situations, I have consulted the audio files for NT. Such cases are noted by means of an acute accent. For the other sources, or if I was not able to hear the accent, I made an educated guess when glossing the aspect.

- (1) *a dam ti d əkkəla*  
 IRR 2S.F.IO 3S.M.DO VNT 1S.pick.up:AO  
 ‘I will pick it up for you’ [Ayer; Casajus, 1985, p. 23, §15]

The main Attraction contexts are:

1. A number of preverbal particles (Preverbs) that add information about Mood, Aspect, Negation and (sometimes) Tense to the verb

Example:

- (2) *wər tāt iney əwedəm wəlləyyān*  
 NEG 3S.F.DO 3S.M.see:NP person none  
 ‘nobody saw her’ [Ayer; Casajus, 1985, p. 85, §11]

---

Different from Heath (2005a), I do not write morphological segmentation in nouns, verbs and forms with pronominal suffixes. Clitics, including the Satellites, are written as single words with spaces around them, following a convention established by Lionel Galand. This has the advantage that no decision needs to be made as to what word is the host of these clitics (see section 8 for a short discussion of this question). In glosses the following abbreviations are used; with the exception of Resultative (instead of Long Perfective), the terms for the aspectual stems follow Kossmann (2011); for alternative terminologies, see the table in Kossmann (2011, p. 56).

AO = Aorist (Heath: Short Imperfective); COMP = Complementizer (see section 9); DEM = Demonstrative; DIR = Directional element; DIST = Distal; DO = Direct Object; EMP = Emphatic particle; F = Feminine; IMPT = Imperative; INDEF = Indefinite; IO = Indirect object; IPV = Imperfective (Heath: Long Imperfective positive); IRR = Irrealis (Heath: Future); IT = Itive, directional away from the speaker (Heath: Centrifugal); M = Masculine; NEG = Negation; NI = Negative Imperfective (Heath: Long Imperfective Negative); NP = Negative Perfective (Heath: Perfective Negative); NT = New Testament (*Ālənžil n-Ḷisa Ālmasex*, 2013); P = Plural; PMPH = Pre-modifier pronominal head; PRP = Bare preposition; PRSF = Preposition with a pronominal suffix; PRX = Proximal; PTC = Participle (subject relative form); PV = Perfective (Heath: Perfective Positive); Q = Yes/no question marker; RC = Relative clause; RES = Resultative; S = Singular; SAT = Satellite; ShRES = Shortened form of the Resultative; VNT = Ventive, directional towards the speaker (Heath: Centripetal). In glosses, square brackets are used for meanings that are only indicated by a zero element. Elements whose form can indicate different functions (e.g., some of the aspectual forms of the verb, and the 1S satellite *ahi*, which can be DO or IO), have been glossed according to their function. Different from Heath (2005a), I will gloss the neutral Demonstrative *a* as DEM also when it functions as a focus marker.

## 2. Relative clauses and content questions

Example:

- (3) *wa n ămăqqar net*  
DEM.S.M of older.brother of.3S  
*wa tăt izlăfăn*  
DEM.S.M 3S.F.DO PTC.S.M.marry:PV  
'that older brother of hers that had married her' [Ayer; Casajus, 1985, p. 19, §9]

## 3. A number of subordinating conjunctions; it should be noted that there are also subordinating conjunctions that do not cause Attraction.

Example:

- (4) *kud in ose,*  
if IT 1S.come:PV  
'if I go there' [Ayer; Ramada Elghamis, p.c., cited in Kossmann, 2011, p. 172]

The main complicating factor is that several Attraction contexts can cooccur, and here we find more dialectal variation. Thus, both the negative Preverb and relative clause constructions are Attraction contexts; as a result, Satellites in a relative clause containing a negation could in principle be before the negative Preverb (Attraction because of the relative clause) or between the Preverb and the verb (Attraction to the Preverb). Depending on the variety, either of these options is chosen.

Some Amazigh varieties show a more complicated and less smoothly laid-out system.<sup>3</sup> One sometimes finds Satellite orders that do not only depend on syntactic function, but also on person. Moreover, Attraction rules may be less strict than in the system set out above. In the latter case, one typically finds two situations (analysis and terminology inspired by Gutova 2021, p. 611ff.):

- a. In Attraction contexts, some Satellites occur twice, once before and once after the Verb; as this only concerns the Directional elements, it will be called Directional Repetition
- b. In Attraction contexts involving more than one Satellite, some Satellites are fronted, while others are in postverbal position. This will be called Partial Satellite Fronting.

Finally, there may be variation in the position of the Satellites when multiple Attraction contexts cooccur.

---

<sup>3</sup> For example, some dialects of Chaouia (Reesink, 1979, II, pp. 368-373); Ghomara (Mourigh, 2016, pp. 274-286); Senhaja (Gutova, 2012, pp. 557-643); Figuig (Kossmann, 1997, p. 272). For an overview, see Gutova (2012, pp. 638-639).

In the following, I will use the term “Satellite” rather than “clitic” as it circumvents a number of more theoretical questions, which are not the subject of the present article. As remarked in the literature (e.g., Haspelmath, 2015), the term “clitic” is often left undefined, and rather used as “an umbrella term, not a genuine category in grammatical theory” (Zwicky, 1994, p. xiii). Even if we use more precise definitions, Amazigh prepositional “clitics” are not easily explained. For example, in a recent and at many points controversial paper, Martin Haspelmath proposes a definition of the comparative concept “clitic” as “a bound morph that is neither an affix nor a root” (Haspelmath, 2023, p. 1). The major difference between clitics and affixes, in his definition, is their nonselectivity as to their host – they attach to elements of different word classes. When it comes to the Amazigh pronominal “clitics”, we are confronted with a number of questions. For example, pronominal clitics occur in pre-verbal position mostly in combination with pre-verbal particles or subordinators, and are traditionally considered to be attached to these. But shouldn’t we consider these preverbal particles and subordinators “clitics” too (see Haspelmath, 2023, p. 11 on subordinators)? That is, to what extent are we dealing with a much larger morphological complex, which may be more selective as to its host than if we look at the pronominal clitics only, and would then count as affixation to the verb rather than cliticization? Moreover, the pre-verbal position of the pronominal “clitics” is also found in relative clauses without a subordinating particle (Heath, 2005, p. 623), that is, immediately following the antecedent (or even detached from that, see section 8 below). Would the pronominal “clitics” in such cases be bound to the antecedent?

The present article stays away from these questions, as it has a different aim – to provide a detailed description of the behavior of the elements. The more principled questions are left for another time.

## **2. Tamashek**

One of the languages that have a more complicated system of Satellites and Attraction is Tamashek. The term Tamashek is used here, in the sense of Heath (2005a), as a cover term for the Tuareg varieties spoken in Mali, excluding the Western Iwellemmeden variety in the extreme east of the country. Tamashek is one of the best described Amazigh languages, due to the work by Jeffrey Heath, which includes a grammar of over 700 pages (Heath, 2005a), a 843 page long dictionary (Heath, 2006), and a text collection (Heath, 2005b). The grammar is among the most complete of any Amazigh language available, ranging from phonology to clausal subordination, and offering a wealth of information and analysis about many different subjects. Other major sources about the grammar of Mali Tamashek include Prasse & ägg-Älbostan äg-Sidiyän (1985) and Leguil (1979-1984; 1983; 1984; 1987; 2000). These

sources play less of a role in the present article, as they either focus on subjects irrelevant to the subject, or have been superseded by Heath's work.

Heath's description provides precious information about the system of Satellites and Attraction (esp. Heath, 2005a, pp. 586-614), but does not offer an exhaustive account. Thus, many questions concerning the order of prepositions with a pronominal suffix vis-à-vis other Satellites remain unmentioned, while Heath touches only occasionally upon the behavior of Satellites in multiple Attraction contexts. Moreover, his account is mostly based on one specific variety, Kal Ansar in the Timbuktu area, while other Tamashek varieties show slightly different systems. In this study, I will try to provide a more detailed and integrated description of these matters, based on a number of text corpora covering three varieties of Tamashek:

1. The Kal Ansar variety described by Heath (2005a) and documented in the texts published in Heath (2005b, pp. 2-124).
2. The variety that is the basis of the translation of the New Testament (hence NT), published by Wycliffe Bible Translators in 2003, and available digitally at the website bible.com (TAQ, translation 1144). This website also provides audio files to the text. NT does not mention which dialect is the target of the translation, but certain linguistic features point to the region around Gao, such as the use of the allomorph *mad* of the Irrealis Preverb *ad* (see section 5.3). This is not unexpected, as the team that produced the translation was based in Gao. An additional publication by the same team is a calendar for the year 2000, *Ozzawān n-awatay 2000. Calendrier Tamasheq 2000*, consisting of 366 proverbs, one for each day.<sup>4</sup>
3. The variety of the Kel Adagh (also known as Tadghaq), spoken in the region of Kidal and Tessalit. For this variety, two sources were used. In the first place, there is the collection of folktales, proverbs and riddles, edited by Mohamed Ag Erless, "*Il n'y a qu'un soleil sur terre*". *Contes, proverbes et devinettes des Touaregs Kel Adagh*. This was first published in 1999, and reedited in 2010. The story tellers all stem from Tessalit in the north of the Adagh region. The other source are the dialogues in the second part of Heath (2005b, pp. 124-163). These were provided by two women who lived in Gao, but originated from Kidal.

Among these, NT is by far the largest corpus, consisting of 566 p. of densely printed text. The other corpora are much smaller. For example, the Tuareg texts in Ag Erless (2010) count about 8,000 words in total, which would correspond to sixteen pages in the typesetting of NT. Therefore, NT will often be the only source that provides evidence of a certain construction.

Of course there are many caveats to using translations as linguistic corpora. The main objection to such texts, linguistic influence from the original

---

<sup>4</sup> I wish to thank Wilma Wolthuis, who provided me with a rare copy of this precious document.

language, may not play a major role in this specific case. NT is a rather free translation, and much attention seems to have been paid to make it as natural and understandable as possible for Tamashek speakers. Another point of concern is the tendency to impose a standardized version of the language, which may render certain types of variation invisible. This is no doubt the case at some points in NT. Thus, for example, the allomorphy of the Ventive element (see Heath, 2005a, p. 596) is greatly reduced in the transcription system adopted in NT. As it appears in the audio files, this is clearly the result of an orthographic decision and not a dialect feature. In its syntactic constructions, however, NT shows much variation, and much of this variation seems to be structured. Therefore, I assume that the translators did not have strict opinions about syntactic constructions, and simply followed spoken language. A third point of concern is more or less the opposite of standardization. The translation team no doubt consisted of people from slightly different dialectal backgrounds. As a result, translations may include several dialectal variants, which would normally not be combined in monodialectal speech. This may be behind the variation in the allomorph of the Irrealis particle *ad* in Attraction context, where NT has both the Gao form *mad*, and the Kidal form *e*. It is therefore possible that some of the variation found in the New Testament is dialectal in nature, and that its system is in fact a blend of two largely consistent dialectal systems. It would therefore be unwise to assign a specific dialect label to this source (like “Gao”), so I will simply refer to it as NT.

The article focuses on two points: the order of the Satellites among each other (section 4) and the behavior of the Satellites in contexts where there are several conditions at the same time that lead to their preverbal position (sections 5-7). The part on Satellite order (esp. 4.2-4.4) relates what was found in the corpus to Heath’s observations. The second part concerns a subject that escaped Heath’s attention to a large extent. Section 8 and 9 provide some information about two further subjects relevant to Satellite fronting.

### 3. Attraction contexts

Tamashek has the same structures as other Amazigh languages when it comes to Attraction contexts:

#### 1. After Preverbs (see section 5)

- (5) *Āgg-āgg-adəm wār dd osa*  
 son-son-Adam NEG VNT [3S.M]-come:NP  
 ‘the Son of man has not come...’ [NT; Luqa 9:57]

2. In relative clauses and related constructions such as content questions:

- (6) *älwäqq wa d osá älzännät*  
 time DEM.S.M VNT [3S.M]-come:RES Paradise  
 ‘the moment that he came to Paradise’ [NT; 2 Käl-Kurənta 12:4]
- (7) *mi dd äšmašälän Exya*  
 who VNT PTC.S.M.send:PV John  
 ‘who has sent John here?’ [NT; Luqa 20:4]

Definite relative clauses involve pronominal elements (such as *wa* in example (6) above) that function as the antecedent to the relative clause. These are special pronominal forms used before modifiers. They have been called by different names, the most commonly used being “supports de détermination” (Galand, 1974). Prasse calls them “pronoms d’appui”, while Heath defines them as “demonstratives used as internal heads”. In the following I will use the term coined in Kossmann (2011), “pre-modifier pronominal heads (PMPH)”. In relative constructions they often repeat the nominal head of the clause, and thus function in a similar fashion as relative markers.

Indefinite relative clauses, on the other hand, do not use a PMPH, and the pronominal elements follow the antecedent immediately (Heath, 2005a: p. 623), as illustrated in example (8) (see also section 8 below).

- (8) *isälän hì əjráznen*  
 news 1S:IO PTC.P.please:RES  
 ‘news that pleases me’ [Heath, 2005a, p. 628, ex. 715a]

3. After most subordinating particles (e.g., *kud* ‘when’)

- (9) *as Älmasex fāw kud dd osá dāy,*  
 COMP Messiah EMP when VNT [3S.M].come:RES EMP  
 ‘that the Messiah, when he comes...’ [NT; Exya 7:31]

Not all subordinating elements cause Attraction. This is illustrated by means of the hypothetical subordinator *kunta* ‘if’ in example (10).

- (10) *kunta tojārād ahi arúrəd*  
 if 2S.surpass:PV<sup>5</sup> 1S.DO hurrying  
 ‘if you are in a bigger hurry than I’ [Kal Ansar; Heath, 2005a, p. 725, ex. 953 (text)]

<sup>5</sup> Heath glosses this verb as an Aorist (Short Imperfective in his terminology). This seems to be a rare *lapsus* in his work.

## 4. The order of the Satellites

The main Satellites are:

- Indirect Object pronouns (IO)
- Direct Object pronouns (DO)
- The Directional elements (DIR):
  - dd* (+ allomorphs) ‘towards the speaker’ (VNT)
  - in* (+ allomorphs) ‘away from the speaker’ (IT)
- Prepositions with a pronominal suffix (PRSF)

When in postverbal position, the order of the Satellites is mostly as shown above: IO – DO – DIR – PRSF. In preverbal position, the most commonly found order is PRSF – IO – DO – DIR. There are, however, many exceptions to this, which will be treated in sections 4.1-4.4.

In addition to these, in relative clauses and content questions with extraction from a Prepositional phrase, a bare preposition (PRP) appears.<sup>6</sup> Bare prepositions follow the question word or the Pre-Modifier Pronominal Head immediately, and thus precede any other Satellites. The bare preposition is not part of the complex of Satellites, and in the presence of a Preverb, the Preverb may separate the bare preposition from the Satellites, e.g.,

- (11) *tekle day dǎy mad hi tammǎyǎm*  
 going EMP in IRR 1S.IO 2P.M.seek:AO  
 ‘a going by which you will seek me’ [NT; Exya 8:21]

In this example, the Preverb *mad*, an allomorph of the Irrealis marker, stands between the bare preposition *dǎy* and the Satellite *hi* (1S.IO).

### 4.1 The position of the Prepositions with pronominal suffixes

In postverbal position, prepositions with pronominal suffixes follow the other Satellites.

- (12) *ǎšmašāl ahi dd sǎrwǎn Mǎssinǎy*  
 [3S.M].send:PV 1S.DO VNT to.2P.M Lord.1P  
 ‘our Lord has sent me to you’ [NT; Kǎl-Ifǎsus 3:2]

In Attraction contexts, prepositions with pronominal suffixes precede the other Satellites; among the relevant elements, only bare prepositions and

---

<sup>6</sup> There are a number of elements that involve a bare preposition that have taken on specific functions, and which will be written as single words: *as* in the meaning ‘when’, and *s* ‘REL’ as a Relative marker for difficult-to-relativize constructions (see section 5.1). Both cause Attraction. On the factive ‘that’ complementizer *as*, see section 9.

Preverbs can come before PRSF. This way, the relative order of IO – DO – DIR vs. PRSF is inverted:

- (13) *əttārǎy dǎy inəṭṭulab nǎk*  
 1S.ask:PV in pupils of.2S.M  
*ad dǎys t əkkəsǎn*  
 IRR in.3S 3S.M.DO 3P.M.take.away:AO  
 ‘I asked your pupils to take it away from him’ [NT; Luqa 9:40]
- (14) *tǎkoba, wǎdden ǎlyafyāt*  
 sword it.is.not peace  
*a sǎrs dd ǎwwǎyǎy.*  
 DEM with.3S VNT 1S.bring:ShRES  
 ‘the sword, it is not peace that I have brought by it’ [NT; Mǎtti 10:34]
- (15) *ǎlyizabāt nǎnhǎy dǎy, ad sǎrnǎy dd*  
 suffering 1P.see:ShRES EMP IRR to.1P VNT  
*arəw akuyəd dǎy alkum has*  
 [3S.F].give.birth:AO perseverance in behind 3S:IO  
 ‘the suffering that we have seen will lead for us to perseverance as a result (lit. behind it)’ [NT; Kǎl-Roma 5:3]

The only exceptions that were found involve a first singular pronoun (see section 4.2, exx. (23) and (24)).

This reversal in order, not mentioned by Heath, is also found in other Tuareg varieties (Kossmann, 2011, p. 99). This is illustrated by example (16) from Ayer Tuareg (Niger).

- (16) *a sǎrəs d əgrəwa iməqqarǎn in*  
 IRR with.3S VNT 1S.find:AO older.brothers of.1S  
 ‘I will find with him my older brothers’ [Ayer; Casajus, 1985, p. 149, §2, cited in Kossmann, 2011, p. 99]

Prepositions with pronominal suffixes are different from the other Satellites, because they are not obligatorily preverbal under Attraction conditions. Such non-attracted PRPS are probably best analyzed as independent words that are outside of the scope of Satellite fronting. Examples:

- (17) *i-ad has dd awəy yursǎn*  
 so.that 3S.M.IO VNT [3S.M].bring:AO at.3P.M  
*folāt net*  
 rightful.portion of.3S  
 ‘so that he would bring him his rightful portion from them’ [NT; Marqəs 12:2]

- (18) *ma kǎy orámǎn sǎri*  
 what 2S.M.DO PTC.S.M.tempt:ShRES to.1S  
*tiyazzǎbud ahi?*  
 2S.torment:IPV 1S.DO  
 ‘what tempts you towards me to torment me?’ [NT; Ijitàn n-  
 inəmmušal 9:4]

The following quote shows both options within a short passage:

- (19) *tisnant ta s Mǎssinǎy*  
 suffering DEM.S.F to Lord.1P  
*a tǎt dd orǎwǎn sǎrnǎy, (...)*  
 DEM 3S.F.DO VNT PTC.S.M.give.birth:PV to.1P  
*tisnant ta s ǎddunya*  
 suffering DEM.S.F to world  
*a sǎrnǎy tǎt dd orǎwǎn*  
 DEM to.1P 3S.F.DO VNT PTC.S.M.give.birth:PV  
 ‘as for the pain towards our Lord, what gives birth to it towards us (...);  
 as for the pain towards the world, what gives birth to it towards us...’  
 [NT; 2 Kǎl-Kurənta 7:10]

In the first instance, *sǎrnǎy* is in focus, which explains its independent status. In the second instance, the mention of *sǎrnǎy* in the text just before it leads to a lack in emphasis, and therefore it can be part of the satellite chain. As a consequence, it is in preverbal position. While it is dangerous to draw conclusions from intonation without a more elaborate analysis, one notes that in the spoken files accompanying the Bible translation the first *sǎrnǎy* is accented, while the second is much less so.

#### 4.2 First person first and the order of Direct and Indirect Object pronouns

Heath (2005a, p. 612ff.) points to variation in the relative order of Direct and Indirect Object pronouns. His account suggests that this involves all combinations of persons, including cases where both Direct and Indirect Object are third person, e.g.,

- (20) *iwǎt t has = iwǎt has t*  
 3S.M.hit:PV 3S.M.DO 3S.IO = 3S.M.hit:PV 3S.IO 3S.M.DO  
 ‘he hit it for him/her’ [Heath, 2005a, p. 613, exx. 687c and 687d]

In the text corpora studied here, only the order IO – DO was found when both pronouns are third person.

Heath (2005a, p. 612) also points to a strong tendency to have first person pronouns first, regardless whether they are Direct Objects or Indirect Objects, e.g.,

- (21) *iwāt àhi has*  
 3S.M.hit:PV 1S:DO 3S:IO  
 ‘he hit me for him/her’ [Heath, 2005a, p. 612, ex. 685b]

- (22) *a wà*  
 DEM DEM.S.M  
  
*hi hák d ässätkälän iyāsan*  
 1S.DO 2S.M.IO VNT PTC.S.M.cause.to.take:PV horses  
 ‘what made me bring up horses with you’ [Kal Ansar; Heath, 2005b:73, l. 3]

This also involves the position of the first person pronoun with regard to the PRSF, e.g.,

- (23) *mafāl wār hi dāys tārmesām*  
 why NEG 1S.DO in.3S 2P.M.arrest:NP  
 ‘why didn’t you arrest me there (lit. in it)?’ [NT; Luqa 22:53]

- (24) *andék a wa*  
 which DEM DEM.S.M  
  
*hi dāysnūt ád mar tāllāyed*  
 1S.IO in.3P.F VNT IRR 2S.inform:AO  
 ‘what is the one from among them that you will speak of (that is, describe) to me?’ [Kal Ansar; Heath, 2005b, p. 81, l. 24]

There are also cases where the opposite is found, and a third person Direct Object pronoun comes before an Indirect Object pronoun. Although Heath does not discuss this, one remarks that the examples he provides of this are all in contexts where the third person Direct Object pronoun has a special form, either because it takes a form starting in *e* rather than *t* (see Heath, 2005a, p. 604ff. for the morphological conditions leading to this allomorphy), or because of the assimilation  $y+t > qq$ :

- (25) *ässäkfäy t hasān* ([ässäkfäqqhasān])  
 1S.make.give:PV 3S.M.DO 3.P.M.IO  
 ‘I made him give (it) to them’ [Heath, 2005a, p. 609, ex. 679a]

- (26) *ijy                    èn                    hahi*  
 3S.M.kill:PV    3P.M.DO    1S.IO  
 ‘he killed them for me’ [Imeddeghan; Heath, 2005a, p. 609, ex. 679b]

Heath mentions that in contexts such as found in example (26), his main spokesperson from Kal Ansar strongly prefers the order IO – DO instead (Heath, 2005a, p. 613). No examples of 3rd person DO – 1st person IO were found in the corpus. This also applies to contexts that would be conducive to the use of *e*-initial allomorphs rather than *t*-initial allomorphs, e.g.,

- (27) *tihusay n hărăt tāj                    ahi t!*  
 beauty of thing    3S.F.do:RES    1S.IO    3S.M.DO  
 ‘a beautiful thing she has done (it) for me’ [NT; Marqəs 14:6]

Without the IO pronoun, the form is *tāj e*, as illustrated in example (28).

- (28) *ij                    e*  
 3S.M.do:RES    3S.M.DO  
 ‘he has done it’ [NT; 1 Exya 2:2]

The first person-first tendency in Tamashek is also found in Tuareg varieties from Niger. In these dialects, however, it is not possible to change the order of the pronouns, and in cases with a third person Indirect Object and a first person Direct Object, the Indirect Object is relegated to the prepositional element *iya-*, as in example (29).

- (29) *yəwăt                    i                    iyas*  
 3S.M.hit:PV    1S.DO    to.3S  
 ‘he has hit me for him’ [Ayer; Kossmann, 2011, p. 100, courtesy of Ramada Elghamis]

Heath does not comment on relative order involving second person and third person pronouns. Only one example was found in the corpus; in this case a second person Direct Object precedes a third person Indirect Object:

- (30) *təddalāy                    kăy                    hasăn*  
 1S.beg:IPV    2S.M.DO    3P.M.IO  
 ‘I am begging you for them’ [NT; Exya 17:9]

This may point to a second-person first tendency parallel to the first-person first tendency described by Heath. It should, however, be noted that *təddalāy kăy hasăn* is pronounced with the assimilation  $\gamma+k > qq$  [təddaläqqäyhasăn], so this could also be a case similar to *ăssăkfăy t hasăn* treated above.

### 4.3 Some special behavior of Indirect Object pronouns

Tamashek allows for the presence of two Indirect Object pronouns, but not for two Direct Object pronouns (Heath, 2005a, pp. 611-612), cf.

- (31) *àd səfran wi hì hasnät mar tǎjəd*  
 with remedies DEM.P.M 1S.IO 3P.F.IO IRR 2S.do:AO  
 ‘and the remedies that you will apply to them for me?’ [Kal Ansar;  
 Heath, 2005b, p. 81, l. 25]

- (32) *i-ad hak hasən in ǎjǎy akātab*  
 so.that 2S.M.IO 3P.M.IO IT 1S.make:AO writing  
 ‘in order to make for you for them a writing’ [NT; Luqa 1:3]

The morphosyntactic status of the Indirect Object pronouns seems to be different from that of Direct Object pronouns also in other ways. They sometimes (although very rarely) escape Satellite fronting and may thus function as independent words. Example (33) below is a particularly clear case, as the verb and the Indirect Object pronoun are separated by a Prepositional Phrase.

- (33) *ak ahì iynu fāl tēsəmt hāsən?*  
 Q [IRR] 1S.IO 3S.M.have.enough:AO on salt 3P.M.IO  
 ‘will that be enough for me, instead of salt, for them (that is, for the camels)?’ [Kal Ansar; Heath, 2005b, p. 41, l. 21]

More generally, Indirect Objects are sometimes attached to verbal nouns or to locational nouns, something that is, to my knowledge, not possible with Direct Objects. The use with nouns – especially verbal nouns – is well-attested in the Kal Ansar texts published by Heath, e.g.,

- (34) *asəstan in hak*  
 questioning of.1S 2S.M.IO  
 ‘my question for you’ [Kal Ansar; Heath, 2005b, p. 77, l. 3]

- (35) *ewätəl has*  
 precaution 3S.IO  
 ‘the precaution for it’ [Kal Ansar; Heath, 2005b, p. 95, l. 9]

- (36) *mey tijàwt hasən lins*  
 or putting 3P.M.IO red.dye  
 ‘or putting (that is, applying) for it (that, is, the disease) red dye’  
 [Kal Ansar; Heath, 2005b, p. 97, l. 19]

- (37) *d ibà n əsəmməttəy has ən səlsa*  
 with absence of replacing 3S.IO of clothes  
 ‘and failure to change clothes (lit. of replacement of clothes) for him’ [Kal Ansar; Heath, 2005b, p. 102, 2]

A special case is the use of Indirect Object pronouns with locational nouns. Some of these are likely grammaticalized into a prepositional type of element, e.g.,

- (38) *dǎy alkum has*  
 in behind 3S.IO  
 ‘behind him’ [NT; Kāl-Roma 5:3]

In others, the meaning of the locational noun is more specific, such as for *əjuɣs* ‘south’ in example (39).

- (39) *wa n əjuɣs has*  
 DEM.S.M of south 3S.IO  
 ‘in the south (probably from something like: that of the south to it)’  
 [Kal Ansar; Heath, 2005b, p. 13, l. 9]

#### 4.4 Double expression of Directional elements

A further feature of Tamashek, not attested in other Tuareg varieties, is the possibility to have a double expression of the Directional elements in Attraction contexts, that is, both before, and after the verb (Heath, 2005a, p. 595). Directional Repetition is facultative, and the corpora provide plenty of examples where it does not occur. One remarks that the Directional elements both carry stress in the Repetition construction.

- (40) *ad hín itaw ín*  
 IRR IT 3S.M.forget:AO IT  
 ‘he will forget’ [Heath, 2005a, p. 601, ex. 662]
- (41) *as tǎn ádd osá dd əjənnə yǎrr*  
 when 3P.M.DO VNT [3S.M].come:RES VNT rain EMP  
 ‘when the rain had come to them’ [Kal Ansar; Heath, 2005b, p. 5, l. 34]
- (42) *ǎməra tɛje tá dǎy yyǎdǎt*  
 now direction DEM.S.F EMP S.F.other
- dǎy ádd ənhǎyǎy ád terǎftitt*  
 in VNT 1S.see:PV VNT frightening.thing
- əd tokayǎt ádd*  
 VNT PTC.S.F.happen:RES VNT  
 ‘now this other direction (nearer here) in which I saw something frightening that happened’ [Kal Ansar; Heath, 2005b, p. 11, l. 3]

In the texts from Tessalit edited by Ag Erless, this double expression is also well-attested, especially after the subordinator *har* ‘until, when’, e.g.,

(43) *har in osān in emm n āzabbār.*  
 until IT 3P.M.come:PV IT mouth of monster  
 ‘until they came to the door of the monster’ [Ag Erless, 2010, p. 82, l. 29]

(44) *as in tos in*  
 when IT 3S.F.come:PV IT  
  
*āmara a d dd təzgār dd tāsa n tešedṭ*  
 then DEM with VNT 3S.F.leave:PV VNT belly of donkey  
 ‘when she came there, it was then that she left the belly of the donkey’ [Ag Erless, 2010, p. 58, l. 25]

Directional Repetition can also take place when there are other Satellites present. The other satellites do not get repeated:

(45) *isəfran iyāḍ tāt in tiwəyən in*  
 remedies other 3S.F.DO IT PTC.P.hold.back:IPV IT  
 ‘(we don’t know) any remedies that hold it back (except...)’ [Kal Ansar; Heath, 2005b, p. 101, l. 19]

(46) *ajud tāt d okāl ádd*  
 when 3S.F.DO VNT [3S.M].step.on.PV VNT  
 ‘when it steps on it’ [Kal Ansar; Heath, 2005b, p. 59, l. 18]

Interestingly, while the Kal Ansar texts in Heath (2005b) abound in cases of Directional Repetition, not one example was found in the dialogues in the Kidal dialect in the same edition. This agrees with NT, where the repetitive construction is not attested, except twice in combination with the Preverb *mad*, (see ex. 84 and ex. 89). This absence in NT might be the effect of a conscious choice by the translators, maybe because the repetition was considered inefficient usage. However, in view of the Kidal texts in Heath (2005b), spoken by two women who lived in Gao at the time, dialectal variation may also play a role here.

#### 4.5 Partial Satellite fronting?

Heath points to occasional instances with multiple Satellites in Attraction context, where one is fronted, while another remains after the verb (Heath, 2005a, p. 614). He explicitly mentions this for Preverb constructions by means of the examples below:

- (47) *wǎr t iŋɣà hahi*  
 NEG 3S.M.DO 3S.M.kill:NP 1S.IO  
 ~ *wǎr hì t iŋya*  
 NEG 1S.IO 3S.M.DO 3S.M.kill:NP  
 ‘He did not kill it for me’ (R) [Heath, 2005a, p. 614, exx. 688a and 688b]

No similar examples of partial fronting were found in Heath (2005b), nor in NT, nor in Ag Erless (2010). Heath (2005a) only provides one example. Assuming that his observation is based on this one example only, one may propose an alternative interpretation, as non-fronted *hahi* could be a case of an Indirect Object that escapes Satellite fronting (see section 4.3).

## 5. Preverbs and Satellites

Preverbs are particles that always precede the verb and that influence the choice of the Mood-Aspect-Negation stem of the verb. Heath (2005a, p. 586) identifies three Preverbs: *kāla* (Past), *wǎr* ‘Negation’ and *ad* ‘Irrealis’ (in Heath’s terms: Future).

In the following, the behavior of the Satellites with regard to these Preverbs will be described. First their behavior in main clauses will be treated, as well as the behavior in subordinated contexts that cause Attraction. The behavior when Preverbs are combined is the subject of section 6.

### 5.1 *kāla*

As mentioned by Heath (2005a, p. 587), *kāla* is followed by special forms of the Perfective or the Imperfective, which show the fixed accent of the Resultative and the Imperfective, but have the short vowels of the (normal) Perfective and the Short Imperfective.<sup>7</sup> This is something also found in definite relative clauses (Heath, 2005a, p. 152ff.; Leguil, 1979-1984). The pattern is also found in NT, as confirmed by the audio files supplementing it, e.g.,

- (48) *ák kǎlá tǎnhǎyǎm tǎrǎst*  
 Q PAST 2P.M.see:ShRES small.well  
 ‘have you ever seen a small well...’ [NT; Yaqub 3:11]

In this example, *tǎnhǎyǎm* has the vowel *ǎ* of the Perfective *tǎnhǎyǎm*, but the accentuation of the Long Imperfective *tǎnháyǎm*. This form will be referred to as the Shortened Resultative (ShRES).

<sup>7</sup> The difference does not occur with all verbs. Shortened forms are only represented as such in the glosses if they are different from the normal Resultative or Imperfective.

The Preverb *kāla* causes the Attraction of the Satellites (not mentioned in Heath, 2005a), e.g.,

- (49) *kālā tt əllān əssín méddān*  
 PAST 3S.M.DO M.P.be:PV two:M people  
 ‘there were two men’ [Heath, 2005a, p. 711 (text), Ex. 894]

- (50) *kāla has itammāy*  
 PAST 3S.IO 3S.M.look.for:IPV  
  
*Simyon d imidiwān net*  
 Simeon with friends of.3S  
 ‘Simeon and his friends were looking for him’ [NT; Marq̄as 1:36]

*Kāla* is only found in two subordinate contexts: relative clauses and question word questions. In these cases, a special type of relative clause is used, which is otherwise mostly in place for possessor and long distance relatives. This construction consists of a demonstrative PMPH, followed by the bare preposition *s* ‘with (Instrumental)’ (Heath, 2005a, p. 635ff., which does not mention *kāla* constructions). As this preposition is refunctionalized into a special relative marker for difficult-to-relativize constituents, it will be glossed REL here,<sup>8</sup> following Kossmann (2011, p. 161).

- (51) *mi s kāla inhāy əssārdasi*  
 who REL PAST 3S.M.see:ShRES soldier  
 ‘who has seen the soldier’ [NT; 1 Kāl-Kurənta 9:7]

- (52) *inn as āhaləs*  
 3S.M.say:PV 3S.IO man  
  
*wa s kāla dāryal*  
 DEM.S.M REL PAST 3S.M.be.blind:PV  
 ‘the man who had been blind said...’ [NT; Exya 9:36]

In subordinate contexts, the Satellites follow *kāla* just like in main clause contexts:

- (53) *mi s kāla t ikfā hārāt*  
 who REL PAST 3S.M.DO 3S.M.give:RES thing  
 ‘who has given something to him...’ [NT; Kāl-Roma 11:35]

---

<sup>8</sup> Just like normal relatives with a bare preposition, constructions with relative *s* cause Attraction:  
*təndəḍ i wa s hin inšā Emāli ibākkaḍān net*  
 happiness to DEM.S.M REL IT 3S.M.excuse:RES Lord sins of.3S  
 ‘happiness to the one whose sins the Lord forgives’ [NT; Kāl-Roma 4:8]

- (54) *dǎy edǎgg wa*  
in place DEM.S.M  
*s kǎla dǎys tǎnsá tafakka n Yisa.*  
REL PAST in.3S 3S.F.spend.night:RES body of Jesus  
‘at the place where the corpse of Jesus had been that night (lit. had spent the night)’ [NT; Exya 20:12]
- (55) *hǎrǎtǎn win dǎy*  
things DEM.P.M.DIST EMP  
*a s kǎla tǎn tamašalǎm kǎwǎneḍ dǎy*  
DEM REL PAST 3P.M.DO 2P.M.perform:IPV you.P.M EMP  
‘it is those things are those that you used to do them yourselves’  
[NT; Kǎl-Kuləs 3:7]
- (56) *ere s kǎla t dǎd tǎššǎlt*  
whoever REL PAST 3S.M.DO [3S.F].bite:ShRES viper  
*isarmay t ayan*  
3.M.frighten:IPV 3S.M.DO rope  
‘if somebody has been bitten by a viper, he will be frightened by a rope (lit. somebody who has been bitten by a viper, a rope frightens him)’ [Ozzawǎn n-awatay 2000, January 29]
- (57) *tǎnfust əs kǎlá kǎy dǎrəs əssəstǎnǎy*  
story REL PAST 2S.M.DO with.3S 1S.ask:PV  
‘the story that I asked you about’ [Kal Ansar; Heath, 2005b, p. 21, l. 13]

The Preverb *kǎla* is probably derived from a more elaborate construction which involves *kǎla* and a following PMPH *a*. Thus, it originated as a particle followed by a relative clause. This explains the shortened forms of the Resultative and the Imperfective, typical of relative clauses, as well as the choice of the *s*-marked relative construction, which is reserved for constituents that are difficult to relativize within Tuareg syntax. In Niger Tuareg, *kǎla* is still used as a particle, e.g.,

- (58) *əmosǎn eklan kǎla = kǎla əmosǎn eklan*  
3P.M.be:RES slaves PAST = PAST 3P.M.be:RES slaves  
‘previously, there used to be slaves’ [Niger Tuareg; Prasse, Alojaly & Mohamed, 2003, p. 370]

In Niger Tuareg, *kǎla* can also be constructed with a following element *ad*. This is probably the PMPH *a* followed by the bare preposition *d* ‘with (Comitative)’. The result is a construction very similar to that in Tamashek, e.g.,

- (59) *wər t illa*  
 NEG 3S.M.DO 3S.M.be:NP
- i s kǎla a d ináy ižənnawǎn*  
 DEM:INDEF REL PAST DEM with 3S.M.see:RES heaven  
 ‘there isn’t anyone who has seen Heaven (except...)’  
 [Tawellemmet; *Ālinjil ən Yaṡsa Ālməsix*; Yaxya 3:13  
 (transcription adapted)]

## 5.2 *wǎr* ‘Negation’

The Negative Preverb *wǎr* causes Attraction. The verb following it is in the Negative Perfective or in the Negative Imperfective.

- (60) *wǎr has t təgdelām*  
 NEG 3S:IO 3S.M.DO 2P.M.obstruct:NP  
 ‘you shouldn’t obstruct it for him’ [NT; Luqa 9:50]

In double Attraction contexts, there seems to be dialectal variation. In the Kal Ansar texts edited by Heath (2005b), the Satellites precede *wǎr* in such contexts, e.g.,

- (61) *a s ət wǎr təjj tèsəmt*  
 DEM with 3S.M.DO NEG 3S.F.do:NI salt  
 ‘in a way that salt doesn’t do’ [Kal Ansar; Heath, 2005b, p. 37, l. 25]
- (62) *tùlatt n ərəzzej iyāt fāl hi wǎr təmməjrādād*  
 kind of animal one:F on 1S.IO NEG 2S.speak:NP  
 ‘one kind of animal on which you haven’t spoken to me’ [Kal Ansar; Heath, 2005b, p. 71, l. 19]

In NT, Satellites consistently come between *wǎr* and the verb, e.g.,

- (63) *mafāl wǎr t dd təlweyām?*  
 why NEG 3S.M.DO VNT 2P.M.lead:NP  
 ‘why didn’t you lead him here?’ [NT; Exya 7:45]
- (64) *har wǎr kǎwǎn əsbǎrrākǎn məssaws*  
 until NEG 2P.M.DO 3P.M.receive:NP masters.3S  
 ‘if its masters don’t receive you’ [NT; Mǎtti 10:14]

There is only one attestation in NT where subordinated non-Participial *wǎr* is preceded by a Satellite:

- (65) *wi hasǎn wǎr iha əlfǎyda.*  
 DEM.P.M 3P.M.IO NEG 3S.M.be.in:NP usefulness  
 ‘the things that didn’t have any use for them’ [NT; Mǎtti 13:48]

The order NEG – SAT is also attested in the Tessalit texts in Ag Erless (example (66)). No relevant instances were found in the Kidal texts in Heath (2005b).

- (66) *a wa wār dd əkkesān*  
 DEM DEM.S.M NEG VNT 3P.M.act:NP  
*meddān wi əmdānen*  
 people DEM.P.M PTC.P.be.complete:ShRES  
 ‘that what people in good health (lit. complete people) couldn’t do’  
 [Ag Erless, 2010, p. 82, l. 33]

There are two instances of *wār* in a double Attraction context with Satellites in *Ozzawān n-awatay 2000*. They illustrate both orders:

- (67) *āfuss ihan ekšer,*  
 hand PTC.S.M.be.in:RES skin-bag  
*kud wār dd āwwey axx,*  
 if NEG VNT [3S.M].bring:NP milk  
*ad dd awəy udi*  
 IRR VNT [3S.M].bring:AO butter  
 ‘a hand (put) in a skin-bag (for churning), if it doesn’t get out milk,  
 it gets out butter’ [Ozzawān n-awatay 2000, March 15]
- (68) *itajj āfuss dāy tāsa*  
 3S.M.put:IPV hand in stomach  
*a dāys dd wār itəkkəs*  
 DEM in.3S VNT NEG 3S.M.take.out:NI  
 ‘the hand puts in the stomach things that he cannot take out of it’  
 [Ozzawān n-awatay 2000, June 21]

There is one major Attraction context where the position of the Satellites is different in NT. In Tamashek, there is a special form, called Participle, which occurs in subject relatives. Normally it is the verb itself that bears the Participial markers, but with Preverbs, they are attached to the Preverb, while the verb takes its normal conjugation (Drouin, 1996). When *wār* takes the Participial form, the Satellites come either before or after the Preverb, in more or less the same frequency. Examples:

- (69) *ere wārān kāwān iknes dāy*  
 whoever PTC.S.M.NEG 2P.M.DO 3S.M.fight:NP EMP  
 ‘anyone who doesn’t fight you (is your friend)’ [NT; Luqa 9:50]

- (70) *ere hi wǎrǎn irha dǎy*  
 whoever 1S.DO PTC.S.M.NEG 3S.M.love:NP EMP  
 ‘anyone who doesn’t love me’ [NT; Mǎtti 12:30]

### 5.3 *ad* ‘Irrealis’

The Irrealis particle *ad* is used to indicate that the event has not yet taken place. *Ad* is followed by a verb in the Aorist or the Imperfective, but never in the Perfective. Depending on the context it may be more temporal or more modal in its connotations. In Amazigh studies, *ad* is mostly referred to as the “Non-realized”, while Heath uses the term “Future”. Heath (2006, p. 504) also mentions a different form *ar* that is used in Imededdeghan (Timbuktu area). This does not occur in our corpus.

In main clauses, *ad* leads to Attraction:

- (71) *ǎyrǎt t, ad hawǎn ǎkawǎn*  
 IMPT.P.M.call:AO 3S.M.DO IRR 2P.M.IO [3S.M].respond:AO  
 ‘call him, and he will respond to you’ [NT; Mǎtti 7:7]
- (72) *ad kǎy dd ǎqqǎlǎy*  
 IRR 2S.M.DO VNT 1S.come.back:AO  
 ‘I will come back to you’ [NT; Kǎl-Roma 9:9]

Heath remarks that *ad* is reduced to *a* before Satellites (Heath, 2005a, p. 963), something that is consistently found in his texts from Kal Ansar and Kidal. It may be different in other dialects, as NT tends to have *ad* in this position, which is also pronounced as such in the audio files that accompany the text.

Before Indirect Object pronouns, *a* may be absent altogether in Kal Ansar, see example (73) (Heath, 2005b, p. 31, fn. 1; see also Heath, 2005b, p. 127, fn. 2 for Kidal). This is best considered a phonological reduction, as the same happens to the neutral demonstrative *a* (example (74)). The result is something that superficially looks like unconditioned Attraction.

- (73) *mey hi tǎt tǎmǎlǎd ǎnta imǎn net*  
 or [IRR] 1S.IO 3S.F.DO 2S.indicate:AO (s)he self of.3S  
 ‘or describe (lit. you should describe) it to me, it itself (that is, its nature)’ [Kal Ansar; Heath, 2005b, p. 43, l. 29]
- (74) *má tǎrǎw,*  
 what 3S.F.bear:IPV
- hǎs itǎmasǎn idommǎn*  
 [DEM] 3S.IO PTC.S.M.become:IPV seeds  
 ‘what does it bear (that is, produce), which becomes seed for it’  
 [Kal Ansar; Heath, 2005b, p. 31, l. 34]

In subordinate contexts that cause Attraction, *ad* has a different allomorph. Heath (2005a, p. 590) describes the following variants:

<i>mar</i>	Kal Ansar
<i>mad</i>	Gao, Imeddedeghan
<i>mad</i> , Participle: <i>mar-</i>	Ansongo
<i>e</i> , <i>he</i>	Kidal, Gourma Rharous, Tessalit
<i>ša</i> (only with NEG)	Diebok (near Gao)

The allomorph *mad* takes a Participial form in subject relatives, just like *wār*. This is not the case of *e*, *he*.

The dialectal distribution is very clear in the text edition by Heath (2005b). The Kal Ansar texts consistently have *mar*, while the Kidal texts have *e* or *he*. In the other parts of the corpus, the situation is a bit less straightforward. In NT, mostly *mad* is found, but there are also quite a number of attestations of *e*. Ag Erless (2010) has three instances of *e*, one of *he* and one of *mad*, all with the same speaker. The use of both *mad* and *e* in NT may point to input from different dialect regions. On the other hand, the presence of *mad* in the Tessalit texts of Ag Erless suggests that the dialectal distribution may be less clear-cut than presented by Heath, and that in fact the two forms vary as much in spoken registers as in the NT translation. In *Ozzawān n-awatay 2000* the Irrealis particle is only attested in Attraction contexts when following *wār* (see section 6.2.1). All four instances have *e*.

### 5.3.1 Satellites and *e* ‘Irrealis’

In subordinate constructions using *e*, the Satellites always precede the Preverb (cf. Drouin, 1996, p. 247). This is also true in subject relative clauses (ex. (76)), where the verb takes the Participial form. Examples:

- (75) *as kāy dd e āqqälāy*  
 when 2S.M.DO VNT IRR 1S.come.back:AO  
 ‘when I will come back’ [NT; Kāl-Roma 9:9]

- (76) *os anāy*  
 [3S.M].come:RES 1P.IO  
*wa hi e isəssāydārān*  
 DEM.S.M 1S.DO IRR PTC.S.M.betray:AO  
 ‘the one who will betray me has come to us’ [NT; Mätti 26:46]

- (77) *ǎywa ǎndek tanfust ta hanǎy e tǎgǎd?*  
 well which story DEM.S.F 1P.IO IRR 2S.do:AO  
*tanfust ta n tešedǎ a hawǎn e ǎǧǎy.*  
 story DEM.S.F of donkey DEM 2P.M.IO IRR 1S.do:AO  
 ‘so which story will you tell us?’  
 I will tell you the story of the donkey.’ [Ag Erless, 2010, p. 54, title line]

- (78) *ma dǎy hǎm tǎn d è žǎnš?*  
 what in 2S.F.IO 3P.M.DO VNT IRR [3S.M].buy:AO  
 ‘with what will he buy them for you?’ [Kidal; Heath, 2005b, p. 135, l. 7]

### 5.3.2 Satellites and *mad* ‘Irrealis’ in NT

In the NT corpus, subordinate constructions with *mad* are much more frequently encountered than those with *e*. The position of the Satellites differs according to two contexts:

- a. Default context, that is, any context that is not (b)
- b. Non-subject relative clauses including a bare preposition

#### 5.3.2.1 Context a: Default context

The default position of the Satellites in subordinate constructions is before *mad*. This applies to subject relative clauses, which have Participial forms of *mad*, and any other type of subordinate clauses. Examples:

- (79) *tǎyrǎm day*  
 2P.M.read:AO also  
*ta tǎn dd madǎt tǎfǎl sǎrwǎn.*  
 DEM.S.F 3P.M.DO VNT PTC.S.F.IRR 3S.F.leave:AO to.2P.M  
 ‘and you should read also the one that will be left to them at your place (lit. towards you)’ [NT; Kǎl Kulǎs 4:16]
- (80) *wi has maden isǎll*  
 DEM.P.M 3S.IO PTC.P.IRR 3S.M.listen:AO  
 ‘those who will listen to him’ [NT; Exya 5:25]
- (81) *tǎndǎd i inǎxdimǎn*  
 happiness to workers  
*wi dd mad agǎz okayǎn.*  
 DEM.P.M VNT IRR [3S.M].encounter:AO 3P.M.be.awake:RES  
 ‘happy the workers that he will find awake’ [NT; Luqa 12:38]

- (82) *əmme dd mad təzzubbət*  
 when VNT IRR 3S.F.descend:AO  
*Təmmənəya n Măssinăy?*  
 Reign of Lord.1P  
 ‘when will the Reign of our Lord come?’ [NT; Luqa 17:20]

There is one attestation of *mad* followed by the Satellites:

- (83) *ajăn Ālmasex Galila a mad dd ifəl?*  
 Q Messiah Galilee DEM IRR VNT 3S.M.leave:AO  
 ‘would the Messiah come from Galilee?’ [NT; Exya 7:41]

A similar construction is attested in the closely related Tamaghit dialect from Burkina Faso described by Sudlow (2011, p. 88).

There is also one example in NT where the Directional element is expressed twice, once before and once after *mad*:

- (84) *ašāl wa*  
 day DEM.S.M  
  
*dd mad dd ass Āgg-ăgg-adəm*  
 VNT IRR VNT [3S.M].come:AO son-son-Adam  
 ‘the day that the Son of man will come’ [NT; Mătti 24:39]

### 5.3.2.2 Context b: Relative clauses including a bare preposition

In relative clauses where the head is followed by a bare preposition (PRP), the situation is different. Here we find large-scale variation between clauses where the Satellites precede *mad* and those where they follow *mad*. This is different from context (a), where the pre-*mad* position is strongly preferred.

Examples:

<PRP SAT *mad*>

- (85) *dihen as t dd mad äqqälăy*  
 there when 3S.M.DO VNT IRR 1S.return:AO  
 ‘there when I would return to it’ [NT; Luqa 19:23]
- (86) *ăyélăn älwăqq wa*  
 3P.M.believe.RES time DEM.S.M  
  
*d fällasăn dd mad təzzubbət*  
 in on.3P.M VNT IRR 3S.F.descend:AO

*Təmmənəya n Mässinǎy, iwwǎđ dd.*  
 Reign of Lord.1P 3S.M.arrive:PV VNT  
 ‘they believed that the time at which the Reign of our Lord would  
 descend upon them had arrived’ [NT; Luqa 19:11]

<PRP *mad* SAT>

(87) *šik dǎy a s mad sǎri dd išəmmişəl*  
 quickly EMP DEM with IRR to.1S VNT 3S.M.send:AO  
 ‘it is quickly that he will send to me...’ [NT; Mätti 26:53]

(88) *əndek əmmək*  
 which manner  
*wa s mad dd ənkǎrǎn inəmmuttan?*  
 DEM.S.M with IRR VNT 3P.M.rise:AO dead.people  
*ma dǎr mad talǎh tayəssa*  
 what with IRR 3S.F.resemble:AO body  
*ta dar mad dd ənkǎrǎn?*  
 DEM.S.F with IRR VNT 3P.M.rise:AO  
 ‘in what form will the dead rise?’  
 what will the body of those who will rise look like?’ [NT; 1 Kǎl  
 Kurənta 15:35]

There is one case where the Directional element is expressed twice in this construction, once before and once after *mad*:

(89) *ed wǎr təssenǎm ašǎl wǎl’ ǎssayǎt*  
 because NEG 2P.M.know:NP day nor time  
*wa s dd mad dd ass Emǎli.*  
 DEM.S.M with VNT IRR VNT [3S.M].come:AO Lord  
 ‘because you don’t know the day or the time that the Lord will  
 come’ [NT; Mätti 25:13]

### 5.3.3 Satellites and *mar* ‘Irrealis’ in *Kal Ansar*

In the *Kal Ansar* texts in Heath (2005b), the Satellites always precede *mar*. No examples with Participles were found. Examples:

(90) *ǎlwǎhla wa hək mǎr ikkəs ǎkǎll ənnǎk*  
 crisis DEM.S.M 3S.IO IRR 3S.M.remove:AO land of.3S.M  
 ‘the crisis that your country will resolve (“remove”) for you’ [Kal  
 Ansar; Heath, 2005b, p. 15, l. 15]

- (91) *əndék a wa*  
 which DEM DEM.S.M  
*hi dāysnūt əd mar tällāyed*  
 1S.IO in.3P.F VNT IRR 2S.inform:AO  
 ‘what is the one from among them that you will speak of (that is, describe) to me?’ [Kal Ansar; Heath, 2005b, p. 81, l. 24]

There is one example with Directional Repetition and *mar*. Different from the examples in NT (exx. (84); (89)), the second Satellite follows the verb rather than *mar*.

- (92) *tètt kārózāt*  
 eye PTC.S.F.be.tight:RES  
*a d mar əj ədd*  
 DEM VNT IRR [3S.M].do:AO VNT  
 ‘a narrow “eye” (passage) is what it (that is, a jackal) will make (coming this way)’ [Kal Ansar, Heath, 2005b, p. 59, l. 17]

## 6. Combinations of Preverbs

The Preverbs *kāla* and *ad* (in its allomorph *mad*) can be combined with the Negation *wār*. They cannot be combined with each other. In cases where two Preverbs are combined there are two contexts for Attraction. In cases where a combination of two Preverbs is found in a subordinate context that causes Attractions, there are even three contexts for Attraction in one single phrase. As a result, the question of the position of the Satellites is highly complicated.

### 6.1 *wār* + *kāla*

According to Heath, there is dialectal variation as to the order of the two Preverbs. In Kidal (Kal Adnan), both *kāla wār* and *wār kāla* are allowed, while in Kal Ansar *kāla* obligatorily precedes *wār* (Heath, 2005a, p. 591). NT shows a slightly more complicated situation, distinguishing between the two syntactic contexts also encountered above (section 5.3.2):

- a. Default context, that is, any context that is not (b)
- b. Non-subject relative clauses including a bare preposition

#### 6.1.1 Default context

In the Default context, the order is *wār kāla* in the vast majority of cases in NT. The verb following *wār kāla* takes the same forms as after *kāla* without negation, e.g.

- (93) **wār kāla** ənhāyān      ǎlmāssexitān (...) idəm in  
 NEG PAST 3P.M.see:ShRES Christians (...) face of.1S  
 ‘the Christians (...) had not seen my face’ [NT; Kāl Gālasya 1:22]

Ag Erless (2010) has only two examples of *wār + kāla*, both in main clauses. They show *wār kāla* (example (94)) (as according to NT), and *kāla wār* (example (95)).

- (94) **wār kālā** ənhāyāy  
 NEG PAST 1S.see:ShRES  
  
*ere dār tolāhād tala n tayatte!*  
 whoever with 2S.resemble:ShRES possession of intelligence  
 ‘I have never seen anybody similar to you in intelligence (lit. with whom you resemble the possession of intelligence)’ [Ag Erless, 2010, p. 90, l. 9]

- (95) *ašāli dāy kāwān dd əfālāy*  
 day in 2P.M.DO VNT 1S.leave:PV  
  
**kāla wār kāwān in** ǎssokāy  
 PAST NEG 2P.M.DO IT 1S.send:NP  
 ‘(since) the day that I left you I have not asked you (...)’ [Ag Erless, 2010, p. 72, l. 10]

In NT, *kāla wār* followed by a Negative Perfective is very rare, but not unattested, as in example (96).

- (96) *šund kāla wār inhey*  
 like PAST NEG 3S.M.see:NP  
  
*ǎlmāssexitān win dāy*  
 Christians DEM.P.M.DIST EMP  
 ‘as if he hadn’t seen those Christians’ [NT; Kāl Gālasya 2:12]

In the case of *kāla* constructions, the Default context is only found in main clause usage, as relative clauses with *kāla* are always constructed with the bare preposition *s* (here glossed REL).

### 6.1.2 Non-subject relative clauses including a bare preposition

In the context that includes a bare preposition, the order is *kāla wār*, e.g.,

- (97) *jān dd təmalle s kāla wār tāt wānhāy*  
 3P.M.do:PV VNT whiteness REL PAST NEG 3S.F.be.seen:NP  
 ‘they had a whiteness that had never been seen’ [NT; Marqəs 9:3]

The following example ((98)) suggests that the *kāla wār* order is only triggered if the bare preposition immediately precedes the Preverbs. In this passage, both the first, and the second instance of *kāla* + *wār* depend on *ti s* ‘those that’. However, only the first instance, which follows *s* immediately, has the order *kāla wār*.

- (98) *təndəd i timəjjejruten*  
 happiness to sterile.women
- d ti s kāla wār əkrešnāt ara,*  
 with DEM.P.F REL PAST NEG 3P.F.acquire:NP child
- wār kāla əssoḏḏnāt*  
 NEG PAST 3P.F.breastfeed:RES  
 ‘happiness to the sterile women and those who have not got a child  
 and (those) who have not breastfed’ [NT; Luqa 23:29]

There is only one (repeated) counter-example to this ((99)).

- (99) *wi s wār kāla əslān*  
 DEM.P.M REL NEG PAST 3P.M.hear:ShRES
- i isəm net, ad t ənhəyān;*  
 to name of.3S IRR 3S.M.DO 3P.M.see:AO
- wi s wār kāla əslān*  
 DEM.P.M REL NEG PAST 3P.M.hear:ShRES
- i isālan net, ad t əjrāhān.*  
 to words of.3S IRR 3S.M.DO 3P.M.understand:AO  
 ‘those who haven’t heard his name will see him,  
 those who haven’t heard his words will understand him’ [NT; Kāl  
 Roma 15:21]

### 6.1.3 *wār* + *kāla* and the position of the Satellites

Both with the order *wār kāla*, and with the order *kāla wār*, the Satellites follow the Preverbs in NT, e.g.,

- (100) *imawān n əddināt en,*  
 mouths of people DIST
- wār kāla tān dd izjār bahu*  
 NEG PAST 3P.M.DO VNT 3S.M.leave:ShRES lie  
 ‘no lie has left the mouths of these people’ [NT; Tānāfalilt 14:5]

- (101) *ad tājrwām āza ojayān*  
 IRR 2P.find:AO young.donkey PTC.S.M.tie:RES  
*s kāla wār t iney āwadəm*  
 REL PAST NEG 3S.M.DO 3S.M.mount:NP person  
 ‘you will find a young donkey attached (there) that nobody has  
 ever mounted’ [NT; Marqəs 11:2]

Heath’s Kal Ansar texts, on the other hand, attest to the option to have the Satellites in between the two preverbs: *kāla* SAT *wār* (example (102)).

- (102) *ənta kālā tūt in wār nəḡkəd fāllas yārr*  
 (s)he PAST 3S.F.DO IT NEG 1P.cut:NP on.3S EMP  
 ‘it (= the salt) we have never cut (= omitted) it on it (= camel)’  
 [Kal Ansar, Heath, 2005b, p. 41, l. 27]

## 6.2 *wār* + *ad*

The combination of *wār* and *ad* automatically leads to the non-initial allomorph of *ad*, with is either *e*, *mar*, or *mad* (see section 5.3). The negative Preverb always precedes the Irrealis Preverb.

### 6.2.1 *wār* + *e*

The allomorph *e* of the Irrealis Preverb *ad* precedes the verb immediately. There are no exceptions. This includes subject relative clauses with a Participial form of the negative Preverb:

- (103) *ālhāk wārān e āhaj*  
 reward PTC.S.M.NEG IRR [3S.M].spend.a.long.time:AO  
 ‘the reward that will not last long’ [NT; 1 Kāl Kurənta 9:25]

Without exception, the position of the Satellites is between the two Preverbs (cf. Drouin, 1996, p. 247):

- (104) *wār hawān in e ānš day*  
 NEG 2P.M.IO IT IRR [3S.M].forgive:AO also  
*Māssināy i n Abba nāwān ibākkadān nāwān.*  
 Lord.1P PRX of father of.2P.M sins of.2P.M  
 ‘your Lord the Father will not forgive you your sins’ [NT; Mätti 6:15]
- (105) *wār kāwān dd e awāy*  
 NEG 2P.M.DO VNT IRR [3S.M].hold.back:AO  
 ‘he will not hold you back’ [NT; Luqa 10:15]

- (106) *ere s tosed*  
 whoever to 2S.find:RES  
  
*wār dd e iwār anu*  
 NEG VNT IRR 3S.M.be.at.a.well:AO well  
 ‘whomever you will find, he will not go to a well (without his animals)’ [Ag Erless, 2010, p. 101 l. 39; proverb]
- (107) *wār tāt è ijrəw ádku*  
 NEG 3S.F.DO IRR 3S.M.afflict:AO abdominal.sickness  
 ‘abdominal sickness won’t afflict her’ [Kidal; Heath, 2005b, p. 127, l. 25]

### 6.2.2 *wār + mad, mar*

When the negative Preverb and the Irrealis Preverb *mad* are combined, the negative Preverb always comes first. In Kal Ansar, *wār* and *mar* are fused to a form *umar* (Heath, 2005a, p. 592). The position of the satellites is variable.

In NT the Satellites either come after *wār* or after *mad*.

<*wār mad SAT*>

- (108) *Təmmənəya n Māssināy, wār mad dd tāj*  
 Reign of Lord.1P NEG IRR VNT 3S.F.do:AO  
  
*ass ilan mǎnhoy*  
 coming PTC.S.M.possess:RES clear.view  
 ‘the Reign of our Lord will not have a clearly defined coming (lit. will not have a coming that has a clear view)’ [NT; Luqa 17:20]
- (109) *wār mad dāym dd əyyən*  
 NEG IRR in.2S.F VNT 3P.M.leave:AO  
  
*wāla ablāy iwarān amidi net*  
 even brick PTC.S.M.be.on:RES friend of.3S  
 ‘they will not leave in you a stone on the other’ [NT; Luqa 19:44]
- (110) *wār mad kāwān dd ass ānabdid*  
 NEG IRR 2P.M.DO VNT [3S.M].come:AO advocate  
 ‘the advocate will not come to you’ [NT; Exya 16:7]

<*wār SAT mad*>

- (111) *wār sārñāy dd mad ijrəw Iblis tašlāt*  
 NEG to.1P VNT IRR 3S.M.obtain:AO Devil hole  
 ‘may the Devil not find a hole towards us’ [NT; 2 Kāl Kurənta 2:11]

- (112) *təssanǎm as*  
 2P.M.know:RES COMP  
  
*wǎr has mad ǎnn amidi net*  
 NEG 3S.IO IRR [3S.M].say:AO friend of.3S  
 ‘you know that his friend will not say to him’ [NT; Luqa 11:7]

Variation seems to be entirely free, as shown by the two otherwise identical phrases (113) and (114) below from very similar contexts.

- (113) *wǎr t dd mad təzjǎrǎd*  
 NEG 3S.M.DO VNT IRR 2S.leave:AO  
 ‘you will not leave’ [NT; Mǎtti 5:26]
- (114) *wǎr mad t dd təzjǎrǎd*  
 NEG IRR 3S.M.DO VNT 2S.leave:AO  
 ‘you will not leave’ [NT; Luqa 12:59]

In Kal Ansar, three different constructions are cited by Heath (2005a, p. 593):

<umar SAT>

- (115) *umàr tǎn əwətǎy*  
 NEG.IRR 3P.M.DO 1S.hit:AO  
 ‘I won’t hit them’ [Heath 2005a, p. 593, ex. 648a]
- (116) *wà š*  
 DEM.S.M EMP  
  
*umàr t əd tǎddǎŋkǎy tǎwǎqqast*  
 NEG.IRR 3S.M.DO VNT 3S.F.walk.into:AO lioness  
 ‘this (dog), a wild beast won’t run on it (that is, won’t take on it)’  
 [Kal Ansar; Heath, 2005b, p. 61, l. 29]

<wǎr SAT mar>

- (117) *wǎr tǎn mar əwətǎy*  
 NEG 3P.M.DO IRR 1S.hit:AO  
 ‘I won’t hit them’ [Heath, 2005a, p. 593, ex. 648b]

<wǎr SAT umar>

- (118) *wǎr hìn umar itawǎy*  
 NEG IT NEG.IRR 1S.forget:AO  
 ‘I won’t forget’ [Heath, 2005a, p. 593, ex. 648c]

I have not encountered any examples of relative clauses containing both *wār* and *mad* in the corpus. At this point, the article by Jeannine Drouin (1996) on the Participle provides several bits of additional information. For the variety that she calls “tadghaq 2”,<sup>9</sup> she provides the following example ((119)).

- (119) *wa wār tāy mar nəlməd*  
 DEM.S.M NEG 3S.M.DO IRR PTC.S.M.learn:AO  
 ‘the one who will not learn it’ [“tadghaq 2”; Drouin, 1996, p. 249]

For the variety that she calls “taneslemt”, and explains to be the variety spoken by the members of the Kel Entassar confederation, Drouin cites Participial forms with *umar*. Her examples show the Satellites, either before, or after *umar*. Drouin adds that, according to her elicited data, Satellites can only come between *umar* if the Participle is in the Feminine Singular (Drouin, 1996, p. 250).

- (120) *wa tāt umarin ilməd*  
 DEM.S.M 3S.F.DO PTC.S.M.NEG.IRR 3S.M.learn:AO  
 ‘the one (M) who will not learn it’ [“taneslemt”; Drouin, 1996, p. 249]

- (121) *ta umarit tāt təlməd*  
 DEM.S.F PTC.S.F.NEG.IRR 3S.F.DO 3S.F.learn:AO  
 ‘the one (F) who will not learn it’ [“taneslemt”; Drouin, 1996, p. 249]

- (122) *ti / wi tāt umarin əlməd*  
 DEM.P.F / DEM.P.M 3S.F.DO PTC.P.NEG.IRR learn:AO  
 ‘the ones (F/M) who will not learn it’ [“taneslemt”; Drouin, 1996, p. 249]

Unfortunately, Drouin did not collect data about the position of the Satellites in the variety she calls “chemenammas”, which uses *mad* and may be the same as the (main) dialect behind NT.

## 7. Satellites in constructions with Preverbs: Summary

The position of the Satellites in constructions with Preverbs can be summarized as follows. The rare exceptions have not been included. It should be noted that for most constructions the corpora other than NT only provide a small number of examples; as a result, there is potential for more dialect-internal variation than observed.

### 1. Main clause contexts with one Preverb:

*kāla* SAT VERB [all varieties]

*wār* SAT VERB [all varieties]

*ad* SAT VERB [all varieties]

<sup>9</sup> Drouin is unclear about the localization of this variety, which she suspects to be an idiosyncratic blend of Tadghaq and Tawellemmet (Drouin, 1996, p. 246). In view of the use of *mar* in Participles and its relatively eastern position, the dialect could correspond to that of Ansongo (cf. Heath, 2005a, p. 590).

2. Subordinate Attraction contexts with a Preverb:

*kāla* SAT VERB [all varieties, as far as attested]

*wār* SAT VERB [NT: except Participial RCs]

*wār* SAT VERB ~ SAT *wār* VERB [Tessalit; NT: Participial RCs]

SAT *wār* VERB [Kal Ansar]

SAT *e* VERB [NT; Tessalit; Kidal]

SAT *mad* VERB [NT: except RCs with a bare preposition]

SAT *mad* VERB ~ *mad* SAT VERB [NT: RCs with a bare preposition]

SAT *mar* VERB [Kal Ansar]

3. Constructions with two Preverbs:

*wār kāla* SAT VERB [NT: except RCs with a bare preposition]

*kāla wār* SAT VERB [NT: RCs with a bare preposition]

*kāla* SAT *wār* [Kal Ansar]

*wār* SAT *e* VERB [NT; Tessalit; Kidal]

*wār* SAT *mad* VERB ~ *wār mad* SAT VERB [NT]

*umar* SAT VERB ~ *wār* SAT VERB ~ *wār* SAT *umar* VERB [K. Ansar]

## 8. A note on clitic hosts

The great majority of Attraction contexts involves elements that precede the verb: Preverbs, PMPHs functioning like relative markers, question words, and subordinating particles. These can easily be analyzed as the hosts to which the Satellites are cliticized. However, indefinite relative clause constructions do not have any overt marker introducing a relative clause, but still show Attraction, as in example (123).

- (123) *isālan hì ajrāznen*  
news 1S.IO PTC.P.please:RES  
'news that pleases me' [Heath, 2005a, p. 629]

One solution to this problem assumes Attraction by a zero relative marker, something that adds considerable complication to the analysis, as one has to assume that cliticization can be hosted by zero elements.<sup>10</sup> Heath (2005a), on

---

<sup>10</sup> This is the solution provided by Dell & Elmedlaoui (1989, 1991). Prasse (2009, p. 131) takes a similar stance: "L'attraction des compl[éments] aff[ixes] est probablement à définir comme étant essentiellement une attraction par l'antécédent du zéro qui le représente dans la relative. Les compl[éments] aff[ixes] manifestes, y compris l'adv[erbe] prép[ositionnel], ne subissent l'attraction qu'en vertu de leur liaison étroite avec le zéro en question." ('the attraction of the affix complements can probably be defined as essentially an attraction by the antecedent of the zero which represents it in the relative clause. The overt affix complements, including the prepositional adverb, only undergo attraction because of their narrow link to this zero.')

the other hand, considers the Satellites to be hosted by the preceding element, and assumes that they can also cliticize to an antecedent noun (e.g., Heath, 2005a, p. 623).<sup>11</sup> There are some caveats to the latter analysis. Thus, in the audio files supplementary to the NT, there are cases where the Satellites in relative clauses like this are separated from the antecedent by a clear pause.

- (124) *i-ad umas takute* [pause]  
 so.that [3S.M].be:AO alms [pause]
- hanäy madät täjrəw*  
 1P.IO PTC.S.F.IRR 3S.F.obtain:AO
- tenäšše n ibäkkadän nänäy.*  
 pardon of sins of.1P  
 ‘so that He would be alms [pause] that will obtain for us pardon for our sins’ [NT; 1 Ekhya 4:10]

The NT audio files represent a remarkably confident rendering of the text, with only very few false starts, unwarranted pauses, or hesitations. In this specific instance, there is no reason to assume that the intonation is not as intended.

Moreover, as Heath remarks at several points in the footnotes to the texts in Heath (2005b), multiple relative clauses may depend on one single Head. In such cases, the Head is not repeated in the second relative clause, but there is still Attraction. This illustrated by examples (125), (126), (127).

- (125) *təll é tərħənnə iyät ən täñäde,*  
 3S.F.be.RES 3S.M.DO disease one:F of fever
- täjjäšät ikāšan*  
 PTC.S.F.go.in:IPV chickens
- särsän ədd itəzzərə dd əkkərdu*  
 to.3P.M VNT 3S.M.induce:IPV VNT filth  
 ‘there is a fever disease, that has come into chickens (and) that is caused among them (that is, chickens) by dirtiness (lit. that dirtiness causes among them)’ [Kal Ansar; Heath, 2005b, p. 75, l. 14]

<sup>11</sup> Note that in the relevant example, (123), Heath marks two accents: *isàlan hì*. This may imply that one of them is a secondary accent (Heath, 2005a, p. 96-97). It suggests, however, that an alternative analysis of the phrase without cliticization to the antecedent would not run into problems from an accentual point of view.

- (126) *bədi tərħanna d zazjərət isibbän,*  
 bədi disease VNT PTC.S.F.bring.out:IPV sores  
*hín təkkat ín*<sup>12</sup>  
 IT PTC.S.F.go.out:RES IT  
*ebrè, n ta sədidāt*  
 toward of DEM.S.F PTC.S.F.S.be.thin:PV  
 ‘*bədi* is a disease that brings out body sores, and that goes in toward  
 (that is, resembles) measles’ [Kal Ansar; Heath, 2005b, p. 79, l. 20]

- (127) *dāmbāraku dáy a ijárrāwǎn arəzzej*  
 night.blindness also DEM PTC.S.M.afflict:IPV animal  
*ətt isájraw təyəre ən təḡəssə nnet*  
 3S.F.DO 3S.M.cause.to.have:IPV crying of body of.3S  
 ‘night blindness too is what afflicts an animal and causes it to be  
 afflicted by a crying out (that is, desperation) of its body...’ [Kal  
 Ansar; Heath, 2005b, p. 85, l. 12]

One remarks that example (127) has a finite verb in the second relative clause, where a subject-relative form (Participle) would be expected.

A further example of this construction is found in the lyrics of the song *Ma tajjām* by the revolutionary poet Keddu ag Osadd, who is originally from the northeastern part of the Adagh region. Here two relative clauses depending on *tenere* ‘desert’ are separated by the non-relative clause *təzzar garr iwǎn* ‘(and) then (she) calls you’.

- (128) *tenere den hín toyyǎm*  
 desert DIST IT 2P.M.leave:RES  
*təzzar garr iwǎn*  
 then [3S.F].call:IPV<sup>13</sup> 2P.M.DO

<sup>12</sup> The analysis of *təkkat ín* is unclear. Heath writes <t-əkka-\t-\ín>, and thus considers the element *t* to be the 3S.M.DO pronoun. This is questionable for two reasons. In the first place, one might expect the feminine participle in this construction rather than a normally conjugated verb. This may not be a decisive argument, as the parallel example (127) unambiguously shows a normally conjugated verb instead of a Participle. More importantly, one would expect the 3S.M.DO allomorph *e* to surface in this form; thus, instead of *təkka t in* one would expect *\*\*təkk e hin*; cf. *āj e hin* ‘put it (there)’ [NT; Marqəs 7:19]. The form *təkkat* is consistent in its segmental structure with the Feminine Singular Participle of a Resultative (cf. Prasse & ägg-Álbostān äg-Sidiyān, 1985, p. 22).

<sup>13</sup> The gloss ‘to call’ is based on the translation provided in the source. I could not find the relevant verb in Heath (2006). It may be related to the verb *əgru* ‘to discern’, which is attested in Tuareg varieties from Niger and Algeria, or, as suggested by one of the anonymous reviewers, a misspelling of *yarr*.

*däy hin toyyäm imyarän əd dəden d aratän*  
 in IT 2P.M.leave:RES old.men and women and children  
 ‘that desert there, that you left, then calls you,  
 in which you left the old men and the women and the children’  
 [Keddu ag Osadd; Klute, 2013, p. 688]

Heath himself admits to his hesitations about this construction, as shown in the following remark to one of the examples above ((125)): ‘This is the second of two indefinite relatives associated with the same external head, so the pronominal P[repositional] P[hrase] is, if anything, cliticized to the first relative clause’ (Heath, 2005b, p. 75, fn. 2).

One may conclude that Heath’s analysis of this type of relative clauses as cliticization to the Head noun stumbles upon problems. One may have a pause between the Head noun and the Satellites, and Attraction occurs in cases where the same Head noun is modified by two relative clauses.

## 9. A note on factive ‘that’ complements

Some factive verbs, such *əssən* ‘to know’ take their complements (factive ‘that’ complements in Heath’s terminology) with a complementizer *as*, which can also be reduced to *əs* or *s* (Heath, 2005a, p. 693ff.) Heath glosses *as* as “Dem-\Instr”, that is, a demonstrative element *a* followed by the bare preposition ‘with’. The behavior of this complementizer *as* to Attraction seems to differ between the corpora. In NT, *as* does not cause Attraction, e.g.,

(129) *orda as iṭṭaf t*  
 [3S.M].hope:RES COMP 3S.M.hold:RES 3S.M.DO  
 ‘he hopes to hold’ [NT; Luqa 8:18].

This is a very frequent construction in NT, and only one exception was found (example (130)).

(130) *əssanəy as tən təssanəm*  
 1S.know:RES COMP 3P.M.DO 2P.M.know:RES  
 ‘I know that you know them’ [NT; 2 Bəṭrus 1:12]

In Heath’s materials, the situation is different, and factive ‘that’ complements seem to have an ambiguous status as to Attraction. On the one hand, Satellites are in preverbal position after *as* (COMP), e.g.,

- (131) *əh̄rākkey as dād itás diha*  
1S.notice:RES COMP VNT 3S.M.come:IPV here  
'I have noticed that he (regularly) comes here' [Ansongo; Heath, 2005a, p. 693, ex. 858b]
- (132) *əssánāy əs əd wər ìmil*  
1S.know:RES COMP VNT NEG 3S.M.be.on.way:NI  
'I know that he isn't coming' [Heath, 2005a, p. 693, ex. 859a]

On the other hand, his examples do not show the Preverbs *e*, *mar* or *mad*, which are obligatory in Attraction contexts, e.g.,

- (133) *ordéy s ad ijál*  
1S.hope:RES COMP IRR 3S.M.go:AO  
'I think that he will go' [Heath, 2005a, p. 693, ex. 859d]

This makes the factive 'that' complementizer different from constructions with a bare preposition, which occur in Attraction contexts only. We seem to be dealing here with a functional change in progress. What was originally a relative construction with a bare preposition is developing into a dedicated complementizer, and loses syntactic features that are typical for relative clauses. This development has been reached its end stage in the dialect of NT, while Heath's materials show an intermediate situation.

## References

- Ag Erless, M. (2010). "*Il n'y a qu'un soleil sur terre.*" *Contes, proverbes et devinettes des Touaregs Kel-Adagh*. Paris: L'Harmattan. Previously published Aix-en-Provence: IREMAM (1999).
- Albaka, M. & Casajus, D. (1992). *Poésies et chants touaregs de l'Ayr*. Paris: Awal/L'Harmattan.
- Āl-nzil n-Īsa Āl-masex (Kitab Ālmuqāddās)*. *Le Nouveau Testament en tamasheq*. s.l.: Wycliffe Bible Translators (2003). Also available at: <https://www.bible.com/en-GB/versions/1144-taq-alnzil-n-isa-almasex-kitab-almuqaddas> (with audio files).
- Boukhris, F. (2013). *Grammaire de la phrase et cliticisation en amazighe: Approche générative minimaliste*. Rabat: IRCAM.
- Casajus, D. (1985). *Peau d'âne et autres contes touaregs*. Paris: L'Harmattan.
- Chaker, S. (1983). *Un parler berbère d'Algérie (Kabylie)*. *Syntaxe*. Aix en Provence: Publications Université de Provence.
- Dell, F. & Elmedlaoui, M. (1991). Clitic ordering, morphology and phonology in the verbal complex of Imdlawn Tashlhiyt Berber. Part 1. *Langues Orientales Anciennes: Philologies et linguistique*, 2, 165-194.
- Dell, F. & Elmedlaoui, M. (1991). Clitic ordering, morphology and phonology in the verbal complex of Imdlawn Tashlhiyt Berber. Part 2. *Langues Orientales Anciennes: Philologies et linguistique*, 3, 77-104.
- Drouin, J. (1996). Les formes participiales en berbère – Essai de dialectologie comparée. *Littérature Orale Arabo-Berbère*, 24, 233-262.
- El Hankari, A. (2013). Agreement, pronominal clitics and negation in Berber. *Brill's Journal of Afroasiatic Languages and Linguistics*, 5(1), 225-252.
- Āl-nzil n-Īsa Āl-masix*. *Tawallammat Tamajaq New Testament*. (2015). s.l.: Wycliffe Bible Translators. Also available through [www.bible.com](http://www.bible.com).
- Galand, L. (1974). Défini, indéfini, non-défini: Les supports de détermination en touareg. *Bulletin de la Société de Linguistique de Paris*, 69(1), 205-224.

- Gutova, E. (2021). *Senhaja Berber varieties: Phonology, morphology, and morphosyntax* (Ph.D. Thesis). Université Sorbonne Nouvelle Paris III.
- Haspelmath, M. (2015). Defining vs. diagnosing linguistic categories: A case study of clitic phenomena. In J. Blaszczak, D. Klimek-Jankowska & K. Migdalski (Eds.), *How categorical are categories? New approaches to the old questions of Noun, Verb, and Adjective* (pp. 273-304). Berlin, München and Boston: De Gruyter.
- Haspelmath, M. (2023). Types of clitics in the world's languages. *Linguistic Typology at the Crossroads*, 3(2), 1-59.
- Heath, J. (2005a). *A grammar of Tamasheq (Tuareg of Mali)*. Berlin and New York: Mouton de Gruyter.
- Heath, J. (2005b). *Tamashek texts from Timbuktu and Kidal (Mali)*. Cologne: Rüdiger Köppe.
- Heath, J. (2006). *Dictionnaire touareg du Mali. Tamachek–anglais–français*. Paris: Karthala.
- Klute, G. (2013). *Tuareg-Aufstand in der Wüste. Ein Beitrag zur Anthropologie der Gewalt und des Krieges*. Cologne: Rüdiger Köppe.
- Kossmann, M.G. (1997). *Grammaire du parler berbère de Figuig (Maroc oriental)*. Paris and Louvain: Peeters.
- Kossmann, M.G. (2011). *A grammar of Ayer Tuareg (Niger)*. Cologne: Rüdiger Köppe.
- Leguil, A. (1979-1984). Opposition et alternance des inaccomplis dans l'Adghagh des Ifoghas. *Comptes Rendus du GLECS*, xxiv-xxviii, 147-197.
- Leguil, A. (1983). La corrélation de concomitance en touareg. *Bulletin des Études Africaines de l'INALCO*, iii(6), 77-123.
- Leguil, A. (1984). La focalisation en touareg de l'Adghagh. *Bulletin des Études Africaines de l'INALCO*, iv(8), 73-88.
- Leguil, A. (1987). Les quatre inaccomplis du touareg de l'Adghagh. In H. Jungraithmayr & W. Müller (Eds.), *Proceedings of the Fourth International Hamito-Semitic Congress* (pp. 395-406). Amsterdam and Philadelphia: John Benjamins.
- Leguil, A. (2000). Une opposition fluctuante en touareg. In S. Chaker & A. Zaborski (Eds.), *Études berbères et chamito-sémitiques. Mélanges offerts à Karl-G. Prasse* (pp. 257-262). Louvain and Paris: Peeters.
- Mourigh, K. (2016). *A grammar of Ghomara Berber (North-West Morocco)*. Cologne: Rüdiger Köppe.
- Ouali, H. (2011). *Agreement, pronominal clitics and negation in Tamazight Berber. A unified analysis*. London: Bloomsbury.
- Ouhalla, J. (1989). Clitic movement and the ECP: Evidence from Berber and Romance languages. *Lingua*, 79(2-3), 165-215.
- Ozzawān n-awatay 2000. Calendrier Tamasheq 2000. Proverbes tamasheq du Mali*. Gao: SIL (2000).
- Prasse, K.-G. (2009). *Manuel de grammaire touarègue. Syntaxe*. Book produced in a small number of copies by Cargo Verlag in Schwülper, but not taken into production.
- Prasse, K.-G. & Ägg-Älbostān äg-Sidiyān, E. (1985). *Tableaux morphologiques. Dialecte touareg de l'Adrar du Mali (berbère). Tesaten ən tmāwiten. Tāmashāq, Aḍagh, Mali*. Copenhagen: Akademisk Forlag.
- Prasse, K.-G., Alojaly, Gh. & Mohamed, Gh. (2003). *Dictionnaire touareg–français. Ālqamus Tāmaẓaq–Tāfrānsist*. Copenhagen: Museum Tusculanum Press.
- Reesink, P. (1979). *Problèmes de détermination en indo-européen et dans une langue chamito-sémitique*. 2 Volumes (Thèse de 3ème cycle). Paris, EPHE.
- Sudlow, D. (2011). *The Tamasheq of North-East Burkina Faso* (2<sup>nd</sup> ed.). Cologne: Rüdiger Köppe.
- Zwicky, A.M. (1994). What is a clitic? In J.A. Nevis, A.M. Zwicky, D. Wanner & B.D. Joseph, *Clitics: A comprehensive bibliography 1892–1991* (pp. xii-xx). Amsterdam and Philadelphia: Benjamins.