

ON THE PAUSAL OR CONJUNCTIVE FUNCTION OF SOME SYRIAC ACCENTS

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ABSTRACT

There is widespread agreement on the purpose of most of the Syriac accents. Some indicate grammatical features, emotions, or attitudes, while some denote pauses or conjunctions between words. In addition, the accents also symbolize the modulations of the voice. Yet, there is no real consensus on the pausal or conjunctive function of the accents sām̄kā, reṭmā, and nāḡōḡdā. The present article seeks to shed light on this matter. I explore the two possible functions of these accents by analyzing their placements, arrangements, and prosodic features. I argue for neither a pausal function nor a conjunctive one but for an intonational value only. I focus on the East Syriac tradition of accentuation as represented in the manuscript Mingana syr. 148. The corpus for the investigation is the Peshitta Gospel of Matthew.

1. INTRODUCTION

Syriac grammarians devised a system of dots, traditionally called accents, to aid the correct reading and understanding of biblical and patristic texts. The Scriptures and the Fathers were recited publicly as part of the liturgy, and the accents served as an ekphonic notation.¹

Ewald (1832: 103-129, 1837, 1839) undertook the first modern scientific analysis of the accents. In the following years, scholars published treatises on accents by Syriac grammarians, extracts of Masoretic codices, and important articles on grammar, Masora, and punctuation.² These works made known the historical development of the accents and the differences between the East and West accentuations.³ At the same time, more and more precise accent studies were published (Phillips 1880, Duval 1881: 137-161, Merx 1889, Moberg 1906, Weiss 1933, Segal 1953), and until today works continue to shed light on this matter (Jones 1998, Coakley 2012, Loopstra 2015, 2016, 2017, 2019, Kiraz 2019, Lundberg 2020, 2022).

There is widespread agreement that the accents represent the intonation of the voice when reading the texts aloud. The position of the dots above, below, or upon the line symbolizes a

¹ Ekphonic notation has been developed in several other Eastern liturgies, e.g., Byzantine, Armenian, Coptic, Jewish, Samaritan (see Wellesz 1954, Avenary 1963, Jourdan-Hemmerdinger 1979, Engberg 2001, and the references therein). Some Sogdian texts (Wellesz 1919) and a Pahlavi Psalter (Andreas and Barr 1933) also employ Syriac accents.

² Phillips (1869), Martin (1869a, 1869b, 1869c, 1872, 1875/1877), Baethgen (1880), Hoffman (1886), Gottheil (1887), Merx (1889), Dietrich (1899, 1904).

³ In addition, the question of the influence of the Greek grammar and punctuation upon the Syriac accents (and that of the Syriac accentuation upon the Hebrew one) have long been debated. See Merx (1889), Moberg (1906), Revell (1974), Jourdan-Hemmerdinger (1979), King (2013), and the references therein.

high (or rising), low (or falling), or level (or dying) tone, respectively.⁴

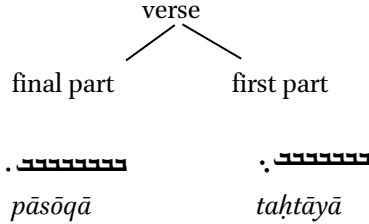
In addition to its intonational value, each accent cumulates other function(s). Some accents mark grammatical features (such as negation, interrogation, command, and exclamation), while some express emotions and attitudes (such as anger, sadness, admiration, and supplication). In this paper, we are not concerned with this type of accent.

Other accents show divisions within the verse.⁵ Following Greek logic, both Syriac grammarians and modern Western orientalists view the verse as divided into two parts: the first one, viz the protasis (*šudāyā*), whose end is marked by the low-tone accent *taḥtāyā* 'lower' (.), and the second and final one, viz.

⁴ Musicologists (Wellesz 1919, Jourdan-Hemmerdinger 1979) argue that the basic function of the accents was truly musical (as a kind of symbolization of notes). At the opposite end, Coakley (2012) suggests that the accents might not even be intended to regulate liturgical recitation. It is worth noting that recitatives from various liturgies span from simple reading without musicality to cantillation (Corbin 1961, Picard 2008). On some aspects of the relationship between the accents and the actually performed traditional Syriac recitative, see Nieten (2013, 2014a, 2014b).

⁵ Generally, Peshitta verses do not coincide with the Hebrew and Latin verses (and with the Greek paragraphs) and are commonly shorter (Duval 1881, 149-150, note 1, Revell 1979, Kiraz 2020, Lundberg 2022). Accordingly, Lundberg (2022) argues that the concept of 'verse' is not suitable for the study of Syriac accentuation as it is for the Hebrew accentuation. Nevertheless, the basic unit of the Syriac accentuation is the clause contained between two *pāsōqē*. So, even if this unit do not correspond with the Hebrew verse, I shall term it here 'verse' as all the syriacists have done before me.

the apodosis (*pur'ānā*) whose end is marked by the level-tone accent *pāsōqā* 'breaking-off' (.): ⁶

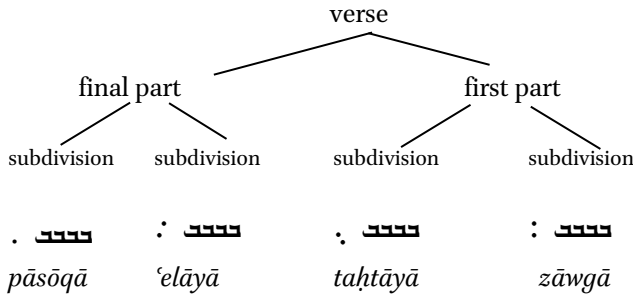


When the verse is short (up to eight words in the manuscript we shall examine, viz. Mingana syr. 148), it is generally not divided, and its accentuation consequently coincides with the apodosis. Within longer verses, the protasis and the apodosis can be subdivided depending on the verse's length, syntactic structure, and/or semantic content. The end of the internal subdivision of the protasis is noted by the level-tone accent *zāwgā* 'pair' (:), that of the apodosis by the high-tone accent 'elāyā 'upper' (:). If needed, *taḥtāyā*, *zāwgā*, and 'elāyā can be repeated. ⁷ This general pattern can be represented as below: ⁸

⁶ Sometimes, a *pāsōqā* (called in these cases *šḥīmā* 'simple') is used to mark a pause within a verse as a substitute for one of the other pausal accents. In addition, in Mingana syr. 148 (as in other Syriac manuscripts), various symbols and combinations of symbols divide the text into sections. Here, these symbols are transcribed as ✦ whatever their form and number. The end of the final verse of a section generally does not present a *pāsōqā* but one (or a combination) of these symbols.

⁷ *Zāwgā* is called *šwayyā* 'level' in West Syriac terminology.

⁸ Throughout this paper, only the accents and the dot upon *dālaṭ* and *rēš* are transcribed. Other dots and lines (that is, the vowel dots and the various diacritics) are not transcribed.



The consensus is that *zāwgā*, *tahtāyā*, *elāyā*, and *pāsōqā* are pausal; that is, they indicate a cessation of phonation during the reading of the verse. (In other words, using Hebrew grammar terminology, they are disjunctive accents).

Words can be marked with other accents within these various divisions and subdivisions. The more frequent ones are the low-tone accent *sāmkā* ‘support’ and the high-tone accent *reṭmā* ‘pronounce’ . *Sāmkā* is commonly (but not exclusively) placed on the penultimate word of the verse. *Reṭmā* can appear on several words within any division or subdivision. This basic pattern of accentuation can be schematized as follows:⁹

⁹ Beyond this general pattern, a wide variation occurs: other accents are also used and other patterns can be found. Exclamative, interrogative, and imperative sentences as well as verses including citation or direct speech may induce a different accentuation. This paper focuses mainly on the accentuation of declarative utterances.

The term *reṭmā* covers three originally distinct accents, viz. *ʿeṣyānā* ‘contention’, *mzīʿānā* ‘movement’, and *reṭmā*. Their graphic shapes are the same: a dot placed above the final letter of the word. It is not always easy to distinguish them with certainty by their form and use.¹⁰ Unlike *ʿeṣyānā* and *mzīʿānā*, *reṭmā* is sometimes placed above a word-internal syllable to which it gives emphasis. Only in this case or when a marginal note in the manuscript specifies the name of the accent can a definitive identification be made. In the East Syriac tradition, which is the one investigated here, these three accents merged over time: *mzīʿānā* absorbed *ʿeṣyānā*, and then *reṭmā* supplanted *mzīʿānā*.¹¹ For this reason, no difference is made here between the three accents (except in exceptional cases). I term them all as *reṭmā*. A summary table of the accents under scrutiny is given below:

¹⁰ In addition, it is sometimes difficult to differentiate between *reṭmā* and *pāqōḏā* ‘commanding’. *Pāqōḏā* is a dot placed above the first or second letter of the word and generally denotes imperative or jussive. However, it also indicates emphasis like *reṭmā*. In this last case, the difference between the two accents is not obvious. (Occasionally, a marginal note indicates the name of the accent, see Loopstra 2019: 170). On the contrary, distinction is clear when *pāqōḏā* is used as demonstrative (corresponding here to West Syriac *mḥawwyānā* ‘demonstrative’) on pronouns and adverbs, and as such placed systematically on the initial ⲥ, e.g., ⲥⲁ ‘he’, ⲥⲁⲛ ‘this’, ⲥⲁⲛⲥ ‘these’, ⲥⲁⲛⲥⲁ ‘then’, ⲥⲁⲛⲥⲁⲛ ‘so’ (see Weiss 1933: 29, Segal 1953: 14–15).

¹¹ Segal (1953: 69, 81, 84, 90), Loopstra (2015: lxxi).

Table of the accents

name	symbol	place
<i>pāsōqā</i> 'breaking-off'	. 𐤑	at the end of the verse
<i>taḥtāyā</i> 'lower'	. 𐤑	at the end of the main division within the verse
<i>elāyā</i> 'upper'	. 𐤑	at the end of a subpart between <i>taḥtāyā</i> and <i>pāsōqā</i>
<i>zāwqā</i> 'pair'	. 𐤑	at the end of a subpart between the beginning of the verse and <i>taḥtāyā</i>
<i>sāmkā</i> 'support'	. 𐤑	on the penultimate word of the verse
<i>reṭmā</i> 'pronounce'	. 𐤑	on words before the above accents

Duval (1881: 151, 156) stands out as holding that *sāmkā* and *reṭmā* are conjunctive accents. All other accentologists, viz. Ewald (1832: 111-112), Philipps (1880: 227), Merx (1889: 37, 48-49, 50, 52-53), Weiss (1933: 32, 50), Segal (1953: 69, 72, 81, 91, 101, 122, 129), and Loopstra (2015: lxvi, lxxi, lxxv) posit that they are pausal.¹² Yet, disjunction and conjunction are not always clearly distinguished. Indeed, some authors paradoxically equal pauses with a continuing phonation. Thus, Merx (1889: 80-81) describes the accent *rāḥṭā dlā pāseq* as representing a very short pause during

¹² Note that Phillipps (1880) gives no pausal or conjunctive value to *ʿešyānā*, *mzīʿānā*, and *reṭmā*, and that Segal (1953) and Loopstra (2015) distinguish between *ʿešyānā* and *mzīʿānā* (which they define as pausal) and *reṭmā* (to which they give no pausal or conjunctive value). Lundberg (2022: 379) is cautious on the value of *sāmkā* stating that this accent could indicate a brief pause or no pause at all.

which the words are not separated.¹³ However, the aural effect of a break is precisely to interrupt the speech flow between words. In the same vein, Segal (1953, 72) states first that *sāmkā* denotes a minor pause, but two lines below, he writes that it is a conjunctive accent.¹⁴ These contradictory statements seem to express a lack of certainty as to the exact roles of these accents.

2. THE EASTERN SYSTEM OF ACCENTS

2.1. Brief overview of the various systems of accents

Before discussing the nuances of the pausal and conjunctive accents, it's crucial to emphasize that the Syriac accentuation system is a fascinatingly complex entity. It's not a rigid system with uniform rules adhered to by every scribe and punctuator. The placement patterns of the accents vary among the manuscripts and the descriptions of the Syriac grammarians, adding a layer of intrigue to its study.¹⁵ Even within a single manuscript, the Syriac accentuation system exhibits a wide variety in the choice and placement of the accents. This diversity adds depth to the study of the system, making it a rich field of exploration for scholars and researchers.¹⁶

¹³ Most of authors agree that *rāhtā dlā pāseq* 'running that do not break' represents conjunction with the following word and in some cases exclamation. Other uncontroversial conjunctive accents are *rāhtā dḳarteh* 'rāhtā of the thumb' and *rāhtā dḫpāseq* 'running that breaks' (which show conjunction with the preceding word and disjunction with the following word) as well as *gārōrā* 'drawing out' and *mḥayydānā* 'uniting' (which occur only in the Western system).

¹⁴ Segal (1953: 72).

¹⁵ See for instance Pusey and Gwilliam (1901: xv-xvi) where identical biblical passages are edited side by side to illustrate differences in accentuation.

¹⁶ See for instance Weiss (1933).

The historical development of the Syriac accentuation system is a testament to the evolution and dynamism of the language. The first accentuation system, in use between the fifth and seventh centuries, paved the way for the emergence of two distinct systems from the split between the East and West Syrians. These systems, related but distinct, developed from the seventh to the tenth centuries, becoming more complex than the first system.¹⁷ In addition, none of the three systems has undergone standardization. This explains the scribes' latitude in the accents' selection and disposition.¹⁸

For instance, according to Segal (1953: 76), the principle of dividing the verse by the accents *taḥtāyā*, *zāwgā*, and *ʿelāyā* is by no means obligatory. While the Western tradition tends to follow it, the Eastern tradition tends to be less consistent. This is also the case for the manuscript we shall examine, Mingana syr. 148. First, no verse contains the four main divisions (at least in the Gospel of Matthew). Second, it is not uncommon for *zāwgā* to be placed before *pāsōqā* (instead of *ʿelāyā*) and conversely for *ʿelāyā* to be placed before *taḥtāyā* (instead of *zāwgā*). For example (relevant items are in bold):¹⁹

¹⁷ From the eleventh century, the development of the accentuation ceased, and Syriac grammarians conceived artificial systems combining Eastern and Western accents.

¹⁸ According to Merx (1889: 177), variations within a same system may also be due to different modes of chanting among the different schools.

¹⁹ The English translation follows Kiraz (2020) with minor emendations here and there. Its punctuation does not aim to represent that of the Syriac text of Mingana syr. 148.

[illegible](fol. 38r)²⁰ Mat 19:29[illegible]

Mat 21:1-2 (fol. 39r)

Thus, as Loopstra (2015, 2016) already underlined, it is necessary to distinguish between sources when studying the accents closely. While Ewald (1932, 1937), Phillips (1880), Duval (1881), and Merx (1889) tended to overlook differences between the three systems, Segal (1953) overlooked differences between

²⁰ The sign \neg in the first word of the verse transcribes a *reṭmā* written with a supralinear line. This line may indicate that some readers preferred to pass over the *reṭmā* during their recital. For more details on this sign, see Loopstra (2016:167-169). In the word $\neg\text{ṭṭṭ}$ the *reṭmā* is marked with a line inscribed from out of its right side. This line indicates a pointing error, that is, the *reṭmā* should not have been written down (see Loopstra 2015: xxxii-xxxiii).

sources within each system. Weiss (1933) and Loopstra (2015, 2016) stand apart in focusing on one manuscript, the famous East Syriac Masoretic codex BL Add. 12138. Following the sound advice of Loopstra, I shall investigate the accents according to one source, the East Syriac manuscript Mingana syr. 148.

2.2. The Eastern manuscript Mingana syr. 148

The Eastern accentual system has been extensively described and discussed in the literature.²¹ The best-studied source is BL Add 12138, the only known East Syriac Masoretic manuscript. Scholars have long recognized its significance in the study of accents. Dated to 899 CE, it contains primarily passages from the Old and New Testament Peshitta and a short treatise on accents.²²

Mingana syr. 148 is a manuscript in the Mingana collection at the University of Birmingham.²³ It was written in 1613 CE by a priest named ‘Abd-el Masiḥ, son of Peter, in a village in the Erbil region.²⁴ It contains the entire New Testament Peshitta, almost fully vocalized and accentuated, and other shorter religious texts.

Mingana syr. 148 presents an accentuation close to that of BL Add 12138, although it was written 700 years later.²⁵ Both copyists claim to have punctuated the text according to older books of reading teachers (*maqryānē*) of Eastern schools and

²¹ See Ewald (1832), Duval (1881), Merx (1889), Diettrich (1899), Weiss (1933), Segal (1953), Loopstra (2015, 2016, 2017), Lundberg (2022).

²² Loopstra (2014) has published a facsimile reproduction of the complete manuscript.

²³ Description of the manuscript can be found in Mingana (1933: 340–345). The manuscript is available online at <http://epapers.bham.ac.uk/100/>.

²⁴ Mingana (1933: 345).

²⁵ Loopstra (2015: lvi–lvii, 2016: 155–156).

include references to different schools in marginal notes.²⁶ Furthermore, the copyist of Mingana syr. 148 mentions that he used a manuscript corrected by Rabban Joseph Busnaya.²⁷ Joseph Busnaya died in 979 CE, so his work is slightly later than that of the copyist of BL Add 12138.²⁸

Another aspect of Mingana syr. 148 is of interest to accentologists. In contrast with BL Add 12138, where most of the text consists of chunks of verses (as usual in Syriac Masoretic compilations), Mingana syr. 148 presents the whole text, with each verse written down entirely. This integrity allows us to study the complete accentuation of each verse and to compare the accentuation of verses of similar syntactic structure easily.

Due to the close relation between the accentuation of the two manuscripts, the following sections will not attempt to provide an exhaustive description of the accents found in Mingana syr. 148. On the contrary, only the accentual aspects relevant to our analysis will be presented.

2.3. Two Eastern signs related to the accents

The accents are dots, strictly speaking. (In Eastern manuscripts, they are commonly written more significantly than the dots used for vowels and diacritics.) Two lines employed solely by Eastern Syriacs, viz. *nāḡōḏā* and *mṭāppyānā*, are nevertheless part of the accentual system as they ensure correct enunciation and intonation.²⁹ In Mingana syr. 148, *nāḡōḏā* has the shape of a diagonal stroke placed above one of the letters of the word –

²⁶ Mingana syr. 148, fol. 3r.

²⁷ Mingana syr. 148, fol. 332r–332v.

²⁸ Loopstra (2016: 155, note 63), Brock (2011: 436–437).

²⁹ Two other lines are also particular to East Syriac, viz. *mhagyānā* and *marhṭānā*. They are not part of the accents since they only have a phonological value (see Bohas 1999).

generally the last one – 𐤌, and *mṭāppyānā* is a kind of hyphen that stands between words on the level of the line 𐤌-𐤌, or below it 𐤌_𐤌, or above it 𐤌-𐤌.³⁰

Native grammarians and European scholars present various and sometimes conflicting views on *nāḡōḏā* and *mṭāppyānā*. Thanks to the study of El-Attar (1982), the sole research on this matter, we now know their functions better. *Mṭāppyānā* is a conjunctive accent.³¹ *Nāḡōḏā* is, in most cases, a conjunctive accent and indicates, in addition, a high tone.³² However, since 1) El-Attar claims that *nāḡōḏā* sometimes has a disjunctive function, and 2) she omits Mingana syr. 148 in her study, 3) accentuation may vary according to manuscripts; I will also consider the function of *nāḡōḏā* alongside that of *sām̄kā* and *reṭmā*.³³

The rules of the placement of *mṭāppyānā* and *nāḡōḏā* may well be immensely more complex than that of the accents. Indeed, they may also imply intricate phonological conditionings and syntactic ones.³⁴ Nevertheless, suffice to know for the

³⁰ Such variations appear as well in other manuscripts, see El-Attar (1982: 106).

³¹ El-Attar (1982). More than conjunction, *mṭāppyānā* may symbolize fusion as hyphens usually do. Hyphenation commonly causes the first word to lose its word-stress or to turn it into secondary stress (cf. the Hebrew *maqqaṭṭ*). However, in Mingana syr. 148, an accent is sometimes written on the first word and there is no evidence that it marks a secondary stress instead of a primary stress. So, due to absence of clear evidence for fusion, I will consider that *mṭāppyānā* indicates only conjunction.

³² In Mingana syr. 148, *reṭmā* and *nāḡōḏā* (or even two *reṭmē* and/or *nāḡōḏē*) are frequently placed side by side on the same word or syllable.

³³ Although El-Attar (1982: 89-90) claims that *nāḡōḏā* denotes in some cases an incomplete pause, she variously states that in these cases *nāḡōḏā* sustains the momentum of connected speech, sustains the voice, maintains continuity between what precedes and what follows, and avoids premature close. All this, therefore, expresses not a break between words but a close connection.

³⁴ El-Attar (1982).

present study that *mṭāppyānā* is a conjunctive accent. As for *nāḡōdā*, I shall focus on its placement relative to syntax and other accents.

3. OUTLINE OF THE PRESENT STUDY

In the following sections, I shall review various evidence for and against pausal and non-pausal functions. In section 4, I show that evidence for pausal value in West Syriac is not relevant in East Syriac. In section 5, I put forth evidence against pausal value from sequences of accents in short verses and short parts of verses. In section 6, I study placements of accents and alleged pauses relative to other accents and syntactic structures. Finally, in section 7, I focus on sequences of accents that may correspond to intonational patterns.

In sections 5, 6, and 7, I compare some prosodic features of Syriac (distributions of pauses, relations between accents and syntax, melodic curves) with those of modern languages. We will certainly never know if the recitation of the Syriac texts according to the accentuation was a simple reading, a declamation, or a kind of recitative such as psalmody or plainsong (a recitation adorned with musical motifs). But we know that reading, declamation, and recitative aim, each in its way, at rendering the intonation and rhythm of the text. There is no reason to believe that these styles of speech production are not governed by the same grammar that governs spontaneous speech (though in the recitative, the role of the music is, of course, also important). Thus, analyzing Syriac accentuation through what we know of modern language intonation is an entirely justified approach. Moreover, since the pioneering work of Ewald (1832), accents are regularly apprehended from this perspective (see especially Duval 1881, El-Attar 1982, Loopstra 2015, 2016, Lundberg 2020, 2022).

In contrast, when the main disjunctive accents are placed on the first word, the spirantization does not occur. The accents obviously express a pause between the words: the vowel is now too far away from the following consonant to influence its pronunciation. An example with the accent *‘elāyā* is given below:

ܐܠܐܝܢܐ ܡܥ ܡܢܐ ܚܒ ܒܠܐ : ܐܝܬܐ

[...] what was spoken by the Lord through the prophet: 'behold! [...]'

Mat 1:22-23

Interestingly, the spirantization does not operate after *sāmka* and *reṭmā*, showing that they also mark a separation:

ܐܡܐ ܝܚܕܡܠܐ ܡܢܡܐ ܐܠܐܝܢܐ ܚܠܠܐ. ܐܝܬܐ ܡܢܢܐ ܒܠܐ ܕ

In order to fulfill what was said in the prophet: 'He will be called a Nazarene'.

Mat 2:23

ܐܠܐܝܢܐ ܡܥ ܡܢܐ ܚܒ ܒܠܐ : ܐܝܬܐ

And he was shown in a dream that he should go to the country of Galilee.

Mat 2:22

Yet, unlike West Syriac, East Syriac's spirantization does not apparently operate across word boundaries, even with conjunctive accents.³⁶ Indeed, East Syriac orthography never indicates the plosive or fricative quality of the *bgdkpt* at the beginning of a word. However, we can infer that the realization is plosive since it is the phonemic value and the default one word-

³⁶ Knudsen (2015: 44, 50).

initially. Moreover, the East Syriac scribes carefully noted the minute details of the pronunciation. So, if the spirantization of the *bgdkpt* had appeared word-initially, it is unlikely that they would not have noted it. In addition, it is worth noting that in the modern Chaldean pronunciation, only the plosive variants are articulated word-initially.³⁷ Spirantization cannot be used to identify pauses and conjunctions in East Syriac due to the absence of direct evidence.

5. EVIDENCE AGAINST THE PAUSAL VALUE

5.1. Too many pauses in a verse

Retmā, *nāḡōdā*, and *sāmkā* are regularly found in concise verses of two, three, or four words. It is highly improbable that breaks occur when reading such short sentences aloud³⁸ Some examples with various accent combinations are given below.

ܐܘܪܝܬܐ ܕܠܝܬܐ .

And the winds blew.

Mat 7:25 (fol. 20v)

ܚܝܬܐ ܕܝܝܢܐ ܕܝܝܢܐ .

You will drink my cup.

Mat 20:23 (fol. 38v)

ܐܒܪܗܡ ܐܬܪܐ ܝܫܥܐ .

Abraham fathered Isaac.

Mat 1:2 (fol. 13v)

ܐܒܪܗܡ ܐܬܪܐ ܝܫܥܐ .

³⁷ Hoberman (1997: 259).

³⁸ Contra Ewald (1932: 111). Certainly, if we suppose that the Syriac accentuation represents the melodies of a musical chant (rather than an intonation close to the reading speech), then unnatural breaks are more likely.

And the disciples gave them to the crowds.

Mat 15:36 (fol. 32r)

• ܡܬܬܢܝܢ ܕܬܝܠܝܢ ܕܡܬܬܢܝܢ ܕܡܬܬܢܝܢ

And she pleased Herod.

Mat 14:6 (fol. 29v)

❖ ܡܬܬܢܝܢ ܕܡܬܬܢܝܢ ܕܡܬܬܢܝܢ

The day's evil is sufficient for that day.

Mat 6:34 (fol. 19v)

5.2. Too many pauses in a row

In the same vein, sequences of three or four consecutive words marked by various combinations of *retmā*, *nāḡōdā*, and *sāmkā* occur in numerous verses. Sequences of five consecutive accented words also occur, albeit far less frequently, and that of six or more are rare. For instance:

• ܡܬܬܢܝܢ ܕܡܬܬܢܝܢ ܕܡܬܬܢܝܢ ܕܡܬܬܢܝܢ ܕܡܬܬܢܝܢ

But they each got a denarius too.

Mat 20:10 (fol. 38r)

• ܡܬܬܢܝܢ ܕܡܬܬܢܝܢ ܕܡܬܬܢܝܢ ܕܡܬܬܢܝܢ ܕܡܬܬܢܝܢ ܕܡܬܬܢܝܢ

They will bring you before governors and kings on my account [...]

Mat 10:18 (fol. 23v)

• ܡܬܬܢܝܢ ܕܡܬܬܢܝܢ ܕܡܬܬܢܝܢ ܕܡܬܬܢܝܢ ܕܡܬܬܢܝܢ ܕܡܬܬܢܝܢ

And he showed him all the kingdoms of the world and their glory

Mat 4:8 (fol. 16r)³⁹

³⁹ The *retmā* on the word ܡܬܬܢܝܢ is written with a red ink which possibly indicates an alternative reading.

Jesus, but, silent, was.

ܕܝܢܝܐ ܕܡܠܝܚܐ ܕܡܠܝܚܐ ܕܡܠܝܚܐ ܕܡܠܝܚܐ ܕܡܠܝܚܐ .

You know that the rulers of the Gentiles are lords over them.

Mat 20:25 (fol. 39r)

Know, you, that the rulers, of the Gentiles, lords over them, are.

Indeed, acoustic measurements of spontaneous and reading speech of modern languages have shown that extremely short intervals can appear between almost every kind of speech segment, even between words strongly linked syntactically (such as an article and a noun, or a noun and its adjective).⁴² But it seems very unlikely that the Syriac scribes were aware of pauses that only modern analysis of speech signal reveals.⁴³

⁴² See Grosjean, Grosjean and Lane (1979), Grosjean, (1980), Gee and Grosjean (1983) and the references therein.

⁴³ In fact, the Tiberian biblical accents (which developed approximatively at the same period than the Syriac accents) mark extremely short breaks. But this is precisely its aim to note for each word its grammatical separation or connection with the following word and this, according to strict rules of accentuation and binary division of the verse (Wickes 1970). In contrast, Syriac accentuation displays a great freedom in the choice, placement, and arrangement of the accents. In addition, numerous words (if not most) and even whole verses are not accentuated at all. Therefore, the Syriac system is not constrained by firm rules that might force to note a pause where it is unexpected.

6. EVIDENCE AGAINST BOTH PAUSAL AND CONJUNCTIVE
VALUES

6.1. Combinations with pausal and conjunctive accents

Reṭmā and *nāḡōḡā* are occasionally marked in combination with *pāsōqā*, *taḥtāyā*, *zāwgā*, and *‘elāyā*, that is, with accents that are pausal. Some examples are given below (relevant items are in bold).

<i>Reṭmā</i>	with	ܠܝܫܐܬܐ ܝܫܘܥ ܒܢ ܝܫܐܬܐ ܕܝܫܐܬܐ ܕܡܪܝܡ .
	<i>pāsōqā</i>	Jacob fathered Joseph the husband of Mary.
		Mat 1:19 (fol. 13v)
	with	ܘܥܝܢܐ ܕܡܠܟܐ ܕܫܡܝܐ ܕܝܠܥܝܬ .
	<i>taḥtāyā</i>	And behold, a voice from heaven said [...]
		Mat 3:17 (fol. 15v)
	with	ܝܕ ܕܝܫܐܬܐ ܕܡܠܟܐ ܕܫܡܝܐ .
	<i>zāwgā</i> ⁴⁴	Go away, Satan! [...]
		Mat 4:10 (fol. 16r)
	with <i>‘elāyā</i>	ܡܠܟܐ - ܡܠܟܐ ܕܡܪܝܡ .
		the murderer of prophets [...] [...]
		Mat 23:37 (fol. 44r)
<i>Nāḡōḡā</i>	with	ܝܫܐܬܐ ܕܝܫܐܬܐ ܕܝܫܐܬܐ .
	<i>pāsōqā</i>	Joram fathered Uzziah.
		Mat 1:8 (fol. 13v)

⁴⁴ Perhaps this combination is to be read as the accent *rāḥtā ḡpāseq* (which combines *rāḥtā* with *pāsōqā*).

with ܣܘܪܐ ܕܚܝܐ ܕܡܠܟܐ .
tahtāyā For we saw his star in the East [...]

Mat 2:2 (fol. 14r)

with *zāwgā* : ܕܢܚܝܐ ܕܡܠܟܐ ܕܡܠܟܐ ܕܡܠܟܐ .
 In order to fulfill what was said
 through the prophet [...]

Mat 13:35 (fol. 28v)

On the other hand, *reṭmā* and *nāgōdā* are frequently found in combination with the conjunctive sign *mṭāppyānā*. They also appear, though rarely, with the conjunctive accents *rāhṭā dḵarteh* and *rāhṭā dlā pāseq*. For instance:

Reṭmā with *mṭāp-* ܡܬܥܝܢܐ ܕܡܠܟܐ .
pyānā [...] he is liable to the assembly.

Mat 5:22 (fol. 17v)

with *rāhṭā* ܕܢܚܝܐ ܕܡܠܟܐ ܕܡܠܟܐ .
*dḵarteh*⁴⁵ Yes my Father, for such was your
 will.

Mat 11:26 (fol. 25v)

ܕܢܚܝܐ ܕܡܠܟܐ ܕܡܠܟܐ ܕܡܠܟܐ .
 Have mercy on us my Lord, Son of
 David!

Mat 20:30 (fol. 39r)

⁴⁵ More precisely, *reṭmā* is found on a word followed by a word marked by the accent *rāhṭā dḵarteh*. *Rāhṭā dḵarteh* indicates conjunction with the preceding word. Note that *rāhṭā dḵarteh* is itself a combination of *rāhṭā* and *reṭmā/mzī'ānā*. Other combinations of *reṭmā* with *rāhṭā dḵarteh* are found in Mat 11:2 (fol. 24v), Mat 25:41 (fol. 47r), Mat 26:49 (fol. 49r).

ܡܫܝܚܐ ܕܥܡܐ ܕܡܬܐܦܝܢܐ
ܕܡܫܝܚܐ ܕܥܡܐ ܕܡܬܐܦܝܢܐ .

Now when John heard in prison
about the Messiah's deeds [...]

Mat 11:2 (fol. 24v)

Nāgōdā with *mṭāp-*
pyānā

ܕܡܫܝܚܐ ܕܥܡܐ ܕܡܬܐܦܝܢܐ

And then he allowed him.

Mat 3:15 (fol. 14r)

with *rāhtā dlā*
pāseq

ܡܫܝܚܐ ܕܥܡܐ ܕܡܬܐܦܝܢܐ .

Our Lord, have mercy on us, Son of
David!

Mat 20:31 (fol. 39r)⁴⁶

Therefore, we can conclude that either *reṭmā* and *nāgōdā* are sometimes disjunctive and sometimes conjunctive (depending on the precise environment in which they occur), or they do not have any function related to disjunction or conjunction. The first hypothesis seems a priori unlikely: it is difficult to imagine a punctuation system where a sign marks two opposite values (sometimes a comma, sometimes a hyphen).⁴⁷ The second is

⁴⁶ This is the only occurrence I found.

⁴⁷ However, the dual value of a punctuation sign cannot be completely ruled out. For instance, in French orthography, the comma denotes generally a pause though sometimes a change in tone without a pause, (Passy 1887: 40, 76.) Interestingly, comparison between the Hebrew and Syriac texts of Daniel shows that *sāmkā* corresponds to both Hebrew disjunctive and conjunctive accents (albeit more frequently to disjunctive ones), see Konrad (2000). Nevertheless, an exhaustive comparison of the two accent systems remains to be done. Certainly, the comparison of Merx (1889, 69–73) is still of great value, but knowledge of both systems has since deepened.

As for *sāmkā*, it is found only exceptionally in combination with other accents. (Overall, *sāmkā* occurs far less frequently than *retmā* and *nāgōdā* since it cannot generally be placed more than once in a verse). *Sāmkā* occurs only once with a pausal accent, viz. *zāwqā*:

They kept mocking him and said.

Mat 27:29 (fol. 51v)⁴⁸

ಮತ. ಬಹುಭವಿಗಳಿಗೆ ಮತ:

The book of the birth of Jesus the Messiah [...]

Mat 1:1 (fol. 13v)

2. **பெரிய அளவு** : **கனம்**

So that the crowds were amazed [...]

Mat 15:31 (fol. 31v)

Despite these meager data, the ambivalent placement of *sāmkā* is the same as those of *reṭmā* and *nāḡōdā*. Therefore, *sāmkā* could be both pausal or non-pausal (according to the context) or have no function related to word interrelation. In the last case, *sāmkā* would represent only a low tone.

⁴⁸ On the sign \neg see note 19.

6.2. Placement at weak and strong syntactic boundaries

Reṭmā, *nāḡōḡdā*, and *sām̄kā* are often placed at weak syntactic boundaries, that is, where two words are strongly connected syntactically. In these contexts, a pause between the two items is unlikely. Some examples are given below.

<i>Reṭmā</i>	adverb of negation +verb	ܪܬܡܐ ܠܡܥܬܐ ܕܚܝܬܐ [...] but he did not know her [...] Mat 1:25 (fol. 14r)
	genitive construction	ܕܡܠܟܐ ܕܡܠܟܐ ܕܡܠܟܐ [...] that the rulers of the Gentiles [...] Mat 20:25 (fol. 39r)
	apposition	ܚܪܕܐ ܕܡܠܟܐ ܕܚܝܬܐ [...] Herod his father [...] Mat 2:22 (fol. 15r) ⁴⁹
	noun+demonstrative	ܕܡܠܟܐ ܕܡܠܟܐ ܕܡܠܟܐ [...] in those days [...] Mat 3:1 (fol. 15r)
<i>Nāḡōḡdā</i>	adverb of negation +verb	ܕܠܐ ܕܠܐ ܕܠܐ [...] 'Do not commit adultery'.

⁴⁹ According to a note in the margin, the first dot on ܕܡܠܟܐ is a *pāqōḡdā*; see also Loopstra (2019: 170).

		Mat 5:27 (fol. 17v)
noun + determiner	ܡܚܝܬܐ ܥܝܢܐ ܥܝܢܐ .	[...] many tax collectors and sinners [...]
		Mat 9:10 (fol. 22r)
genitive construction	ܡܠܬܐ ܕܡܠܬܐ .	[...] the angel of the Lord
		Mat 1:24 (fol. 14r)
apposition	ܡܠܬܐ ܕܡܠܬܐ .	[...] King Herod [...]
		Mat 2:19 (fol. 15r)
<i>Sāmkā</i>	ܕܠܐ ܡܫܝܚܐ ܕܠܐ	adverb of negation
	+verb	Do not store up for yourselves [...]
		Mat 6:19 (fol. 19r)
	ܡܫܝܚܐ ܕܡܠܬܐ .	verb+adverb
		[...] he was very angry.
		Mat 2:16 (fol. 14v)
	ܡܠܬܐ ܕܡܠܬܐ .	adjective+adverb
		Very vicious.
		Mat 8:28 (fol. 21v)
	ܡܠܬܐ ܕܡܠܬܐ .	noun+adjective
		two other brothers.
		[...]
		Mat. 4:21 (fol. 16v)
genitive construction	ܡܠܬܐ ܕܡܠܬܐ .	

To sum up, *reṭmā* and *sāmkā* are used at both weak and strong boundaries where a pause is unlikely and likely, respectively. As in the case of accent combinations, this ambivalence can be interpreted in two ways: either these accents show sometimes disjunction sometimes conjunction, or they express no

separation or continuity between words. As for *nāḡōḍā*, its placement is regular only at weak boundaries, so from a syntactic point of view its interpretation as a conjunctive accent is more likely.

7. EVIDENCE FOR TONAL VALUE ONLY

7.1. Arrangements of accents patterning with the natural declination of the voice

In natural languages, breath groups (also termed intonation groups) are generally characterized by the gradual decline of the voice pitch toward the end.⁵¹ As Ewald (1832: 109) and Duval (1881: 150) already pointed out, the regular sequence *reṭmā-sāmkā-pāsōqā* found in short verses and final parts of verses reflects precisely this natural declining intonation. Indeed, this sequence indicates a high-low-level (or rising-falling-dying) tone pattern. The same is also true for the verse parts ending with *taḥtāyā* and *zāwgā* which are often preceded by one or more *reṭmā* and/or *nāḡōdā*, representing high-low and high-level pitch contours, respectively. These melodic curves are also clearly observable in Mingana syr. 148, for instance:

verses with no subdivision:

සමස්ත ප්‍රතිචාරය

His clothes became white like the light.

Mat 17:2 (fol. 34r)

³⁵ This excludes special intonations that can appear with interrogation, exclamation, order, expression of attitudes or emotions. On declination, see *Hirst and Di Cristo* (1998: 19ff.) and the references therein. The voice declination may well be a universal feature rooted in physiological constraints (*Vaissière* 1983, 1991).

ܐܬܝܬܝܢ ܕܥܡܠܐ ܕܥܝܠܐ ܕܥܡܠܐ ܕܥܝܠܐ ܕܥܡܠܐ .

An evil and adulterous generation seeks a sign.

Mat 12:39 (fol. 27r)

ܐܬܝܬܝܢ ܕܥܡܠܐ ܕܥܝܠܐ ܕܥܡܠܐ ܕܥܝܠܐ ܕܥܡܠܐ .

A brother will hand his brother over to death, and a father his child.

Mat 10:21 (fol. 23v)

subdivisions ending with *pāsōqā*:

ܡܥܬܝܢ ܕܥܡܠܐ ܕܥܝܠܐ ܕܥܡܠܐ ܕܥܝܠܐ ܕܥܡܠܐ .

[...] and causes his rain on the upright and on the wicked.

Mat 5:45 (fol. 18r)

ܡܥܬܝܢ ܕܥܡܠܐ ܕܥܝܠܐ ܕܥܡܠܐ ܕܥܝܠܐ ܕܥܡܠܐ .

and he was begging him, and said. [...]

Mat 8:5-6 (fol. 20v)

ܡܥܬܝܢ ܕܥܡܠܐ ܕܥܝܠܐ ܕܥܡܠܐ ܕܥܝܠܐ ܕܥܡܠܐ .

[...] a certain ruler came, he approached, bowed down before him, and said.

Mat 9:18 (fol. 22v)

subdivisions ending with *taḥtāyā*:

ܡܥܬܝܢ ܕܥܡܠܐ ܕܥܝܠܐ ܕܥܡܠܐ ܕܥܝܠܐ ܕܥܡܠܐ .

And when you pray [...]

Mat 6:7 (fol. 18v)

ܡܥܬܝܢ ܕܥܡܠܐ ܕܥܝܠܐ ܕܥܡܠܐ ܕܥܝܠܐ ܕܥܡܠܐ .

He causes his sun to rise on the good and the evil [...]

Mat 5:45 (fol. 18r)

subdivisions ending with *zāwgā*:

20. 25. 2025

And if he asks him for a fish [...]

Mat 7:10 (fol. 19v)

20. שחל אשכנזי. דאשכנזי :

so, if you who are evil [...] [...]

Mat 7:11 (fol. 20r)

Now, a breath group is by definition a sequence of words without any internal pause. If the accent patterns above really aim to symbolize the characteristic declination of breath group, therefore 1) the accents *reṭmā*, *nāḡōḍā*, and *sām̐kā* cannot mark pauses and 2) the connection between words is not expressed by the accents themselves but by the contour they represent together. So, it seems a fair guess that the accents under scrutiny only indicate the ups and downs of the voice.

7.2. Sequences of high tones and continuing phonation

As observed in the preceding sub-section, the sole accents that are usually repeated inside the subdivisions of the verses are *reṭmā* and *nāḡōḍā*, that is, high tones. (Sequences of *reṭmē* and/or *nāḡōḍē* occur most frequently before *taḥṭāyā*). Some examples are given below.

verses with no subdivision:

مسجد مسجد مسجد مسجد مسجد .

And he will quickly send them here.

Mat 21:3 (fol. 39r)

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The Son of Man came eating and drinking.

Mat 11:19 (fol. 25r)

subdivisions ending with *pāsōqā*:

ܕܢܫܐ ܕܡܬܬܬܢܐ ܕܡܬܬܬܢܐ ܕܡܬܬܬܢܐ .

[...] Jesus began talking to the crowds about John.

Mat 11:7 (fol. 24v)

ܕܡܬܬܬܢܐ ܕܡܬܬܬܢܐ ܕܡܬܬܬܢܐ ܕܡܬܬܬܢܐ .

[...] Herodias' daughter danced before the guests.

Mat 14:6 (fol. 29v)

subdivisions ending with *taḥtāyā*:

ܕܢܫܐ ܕܡܬܬܬܢܐ ܕܡܬܬܬܢܐ .

But when King Herod died [...]

Mat 2:19-20 (fol. 15r)

ܕܡܬܬܬܢܐ ܕܡܬܬܬܢܐ ܕܡܬܬܬܢܐ ܕܡܬܬܬܢܐ .

Then he got up and rebuked the winds and the sea [...]

Mat 8:26 (fol. 21v)

ܕܡܬܬܬܢܐ ܕܡܬܬܬܢܐ ܕܡܬܬܬܢܐ ܕܡܬܬܬܢܐ .

And everyone who hears these words of mine and does not keep them [...]

Mat 7:26 (fol. 20v)

subdivisions ending with *zāwgā*:

ܕܡܬܬܬܢܐ ܕܡܬܬܬܢܐ ܕܡܬܬܬܢܐ ܕܡܬܬܬܢܐ .

Therefore, if you are presenting your offering at the altar [...]

Mat 5:23 (fol. 17v)

ܕܡܬܬܬܢܐ ܕܡܬܬܬܢܐ ܕܡܬܬܬܢܐ ܕܡܬܬܬܢܐ .

And everyone who gives one of these little ones just a cup of cold water [...]

Mat 10:42 (fol. 24v)

ܩܕܝܫܐ ܕܥܡܪܐ ܕܥܡܪܐ ܕܥܡܪܐ ܕܥܡܪܐ ܕܥܡܪܐ :

[...] you know how to interpret the appearance of the sky [...]

Mat 16:3 (fol. 32r)

Keeping the intonation high within sentences is a mark of continuation in many languages such as English and French.⁵² Consequently, if Syriac had this characteristic, then the sequences of accents representing high tones may well indicate the reader to sustain his voice high in order to mark that the end of the verse subdivision is still not arrived. If so, the function of *retmā* and *nāgōdā* cannot be pausal.⁵³ As for the conjunctive value, it could stem not from the accents themselves but from the melodic movement they represent when combined. Therefore, it seems reasonable to surmise that *retmā* and *nāgōdā* indicate only a high tone.

8. CONCLUSION

In this paper I attempted to clarify the function of the accents *retmā*, *nāgōdā*, and *sāmkā* according to their use in Mingana syr. 148. First, I showed that evidence for pausal value in West

⁵² Passy (1887: 74–75), Delattre (1966), El-Attar (1982: 84), Vaissière (1983: 84), Hirst and Di Cristo (1998: 27).

⁵³ Nevertheless, a high intonation marking continuation can be followed by a pause, for instance at the end of unfinished utterances or between words (or groups of words) of a list; see the references in the note above as well as Hirst and Di Cristo (1998: 27). This is also the case in Syriac in some specific situations. Indeed, according to Duval (1881: 151), the subdivision of the apodosis is accentuated by a high tone, viz. *‘elāyā*, precisely to maintain the voice high before the final fall at the end of the verse. But in this case, the accent (that is, *‘elāyā*) nevertheless denotes a pause. This case is like those where a high tone (*retmā*, *nāgōdā*) is associated with a pause (indicated by *pāsōqā*, *tahtāyā*, or *zāwgā*), see section 6.1. See also note 32 above on the possible incomplete pauses expressed by *nāgōdā*.

Syriac is not relevant in East Syriac. Then I turned to Mingana syr. 148 specifically and presented various data showing that the accents under scrutiny seem to be neither pausal nor conjunctive. Therefore, I concluded that they may well have only a tone value.

Segal (1953: 80–81, 120–122) already stated that East Syriac uses the accents more musically than West Syriac. His opinion is supported by the study of Mingana syr. 148 where *retmā* and *sāmkā* are apparently employed for symbolizing only the intonation whereas in West Syriac they mark both intonation and division between words.

A great deal of work remains to be done to determine how the accents are selected, placed, and arranged, and this, not only in Mingana syr. 148 but also in the other Syriac sources. Surely there may still be generalizations to be discovered. As for the generalization put forward in this article, it remains to be seen whether it would be confirmed when checked against a sample of accentuations from other East Syriac manuscripts.

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