

## THE SYNTAX OF ‘-cā’ (\*-k<sup>w</sup>e) IN *AHUNAVAITI GĀTHĀ*\*

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This paper seeks to provide a full description of the syntactic behaviour of the enclitic co-ordinate conjunction -cā in the earliest stage of the Avestan language. By studying the occurrences of the particle in *Ahunavaiti Gāthā*, a distributive analysis is provided together with an interpretative hypothesis of its distributive dynamics. Two syntactic levels, phrase and sentence, are taken into consideration. Finally, a syntactic domain-based variation is argued and two clitic functional variants are identified as synchronically operating conjunction strategies.

*Key words:* cā, co-ordination, Avestan, Ahunavaiti.

### 1. Preliminary Remarks

#### 1.0. Aim of the Study

This study is devoted to an analysis of the distribution of the enclitic conjunction in co-ordinate compounds in Old Avestan (henceforth OA). Few studies<sup>1</sup> have under-

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<sup>1</sup> Pirart (1997) contributed to the survey of this particular problem, although from a different perspective. More notably, except for Kellens (1984), who analytically lists nearly every distributive scheme, all other traditional syntactic descriptions of OA (including those by Reichelt 1978 and Beekes 1988) do not consider the matter in depth.

lined how this particle plays a central role in OA syntax, not merely due to the high number of occurrences, but also because it is a strong vehicle of textual cohesion and contributes to defining *Gāthā*'s formular character. For this reason, it is a priority of the present study to underline the interaction strategies that OA adopts with regard to the occurrence of *-cā* as a phrasal, rather than sentence, co-ordinative element.

### 1.1. The Particle *-cā*

As is well known, *-cā* (Skr. *-ca*) appears to have developed from an enclitic, zero-ending *\*-k<sup>w</sup>e* form of the PIE interrogative pronoun *\*k<sup>w</sup>é/ó-*, probably due to the pressure of an ongoing grammaticalisation process, as claimed by Bader (1973). Kellens and Pirart (1988–1991) identify three main characteristics of its use in OA: co-ordination, emphasis and indetermination. In the latter two cases it occurs as a prior alternative to *-cīŕ*, while in the first, together with the disjunctive variant *-vā*, it is the most recurrent means for in-phrase and in-sentence co-ordination. A differential value also derives from this latter use (see Kellens–Pirart 1988–1991). The particle has parallels throughout the whole Indo-European landscape and in particular, consideration must be given (apart from the aforementioned Skr. *-ca*) to the Lat. *-que* and Gk. *-τέ*, each of which preferentially adopts a single occurrence distribution pattern.<sup>2</sup>

### 1.2. Avestan Co-ordinate Structures

The enclitic co-ordinative conjunction *-cā* is used in the Avesta to form almost any kind of co-ordinate structure. Constituents conjoined in this way are, in the first instance, nouns, pronouns and verbal nouns, followed by verbs, adjectives and adverbs, but *-cā* also appears to be able to co-ordinate subordinate clauses.

The number of elements involved in phrasal co-ordination can be significant: it varies from two to five and most of them constitute a phrase where each constituent has the same syntactic value. Every conjoined element can also be subject to internal composition (as in the cases of composite nouns and verbs, or pronominal/adverbial periphrasis, or genitival expansion, and so on). This fact is notable because of the potential multiplication it is able to produce regarding the number of constituents with which *-cā* can bind and may represent an obstacle to the text interpretation.

<sup>2</sup> As Eichner (1972) and Dunkel (1982) pointed out, PIE *\*-k<sup>w</sup>e* particle placement strategies seem to be basically polarised into two main patterns: a single-occurrence one operating on the last conjoined element (A Bk<sup>w</sup>e; A B Ck<sup>w</sup>e etc.) and a multiple-occurrence one, falling on each conjoined element (Ak<sup>w</sup>e Bk<sup>w</sup>e; Ak<sup>w</sup>e Bk<sup>w</sup>e Ck<sup>w</sup>e etc.).

## 2. Theoretical Framework

### 2.0. Methodology

As already noted,<sup>3</sup> there is a large number of issues connected to \*-k<sup>w</sup>e distribution, particularly within a textual framework where there is a high frequency of its occurrence. This is not only a matter of syntax, but also very much involves stylistic and semantic problems. Therefore, given the fact that it would be a kind of abstraction to work purely on the basis of syntax-semantics or syntax-metric-prosody interfaces and, on the other hand, it would be beyond the scope of this work to discuss each of these implications systematically, it is preferable here to examine the essential dynamics of particle distribution with an eminently descriptive analysis. For this reason, a method based on the quantitative examination of data in a closed corpus setting has been adopted. Occurrences will be presented in their context and then analysed. The choice to deal with phrase and sentence conjoined compounds separately is based essentially on the condition of their formal and/or functional distance: the former a syntactically uniform set, the latter a diverse set. This leads to a dual line of research. On the one hand, the quantification is aimed at distinguishing positional criteria on the basis of a kind of distribution that is strongly linked to the internal clause structure and thus to its intelligibility: this is the case of compounds which basically form co-ordinate phrases. On the other hand, the study must also deal with sentence ground distribution, which mainly pertains to the operating strategies finalised in maintaining a high level of textual cohesion.

### 2.1. Markedness

There is a key concept that may be useful to underline and this concerns the question of markedness, as regards marked/unmarked opposition in syntax. This notion is often dealt with either summarily or its meaning is mistakenly taken for granted. In truth, it is still a much-debated issue and some (see Haspelmath 2004 and 2006) even deny the need to adopt it as a useful interpretative category.<sup>4</sup> Typological studies, however, give great importance to the idea of markedness:

“The essential notion behind markedness in typology is the fact of asymmetrical or unequal grammatical properties of otherwise equal linguistic elements / inflections, words in word classes and even syntactic constructions.” (Croft 1990, p. 64)

<sup>3</sup> Most of all, Dunkel (1982) and Klein (1985).

<sup>4</sup> Haspelmath’s idea basically follows the need for terminological economy. In his view, markedness is simply a superfluous notion which overlaps with common designations of common concepts. As he states in the conclusion of his article: “we do not need a technical linguistic term for abnormality/uncommonness/unusualness/unexpectedness [...]” (Haspelmath 2006, p. 69).

Therefore, it is important for this study to regard this property as a feature which needs to be examined. In particular, it needs to be considered within a framework which includes other features, such as frequency and complexity, not only in order to define markedness itself, but above all to see it in an epistemological way; in first instance such a need emerges from the aim to measure. In this respect, Givon's words are particularly appropriate:

“[...] markedness may be viewed as the governing meta-principle of iconicity, expressing the correlation – admittedly not always perfect – between structural and functional complexity: categories that are structurally more marked tend to also be substantively more marked.” (Givon 1984, p. 38)

Complexity contributes in marking a structure, just as frequency contributes in prioritising it in a range of possible uses. Regarding this, and working on data drawn from textual sources, the next passage from Givon is also significant:

“In attempting to understand the biased distribution of structural complexity in grammatical construction, the most striking feature it correlates with is a parallel skewing in frequency distribution. Most typically, that is, the marked category is less frequent in text, and the unmarked one more frequent.” (Givon 1984, p. 38)

For this reason, this variable will be discussed with much caution in the present study. In general, there will be a preference to talk about markedness in a relative way: distribution may be more or less marked relative to its quantification, but this is not a reliable indication of markedness *per se*.

## 2.2. Word Order

In approaching the subject of OA syntax, a further important factor is invariably involved in any discussion of clitic placement and merits consideration, i.e. word order (henceforth WO). In OA, in fact, the variation associated with the distribution of the elements making up the sentence and its subdomains, appears particularly high,<sup>5</sup> making the identification of basic patterns difficult. Despite this, it seems possible to gain some useful evidence from our text analysis which allows us to go beyond the ordinary claims regarding the SOV basic order within the sentence. In agreement with

<sup>5</sup> One, in fact, cannot avoid mentioning the problematicity involved in any discussion of word order regarding highly literary texts. As West rightly claims, “In treating of word order in Old Avestan we have to recognise that the evidence is drawn exclusively from highly stylised texts. We have no specimens of ‘natural’ or informal language such as might be afforded by a personal letter or a plain narrative report” (West 2011, p. 105). This means that word order strategies in OA imply processes of a mnemonic (due to the centuries-old oral tradition), stylistic, in the pure sense, and pragmatic nature that are not as open to investigation as they might have been in the case of sources closer to a spontaneous use of language.

West (2011), it is possible to define some basic notions that can be considered the ‘WO backbone’ in OA:<sup>6</sup>

- i. Initial position: the position reserved for emphatic elements such as words highlighted by anaphora, demonstrative pronouns, interrogative pronouns etc.
- ii. Final position: typically occupied by unemphatic elements such as verbs, vocatives, comparatives/superlatives etc.
- iii. Emphatic distraction: the process by which two emphatic words function, separated by one or more less emphatic/non-emphatic words.

All three notions involve the concept of emphasis, which is central to our argument.

Although the phenomenon of rhetorical emphasis<sup>7</sup> has been used as a general reference to the highlighted elements in a sentence, it is also of great importance in traditional syntax studies on WO.<sup>8</sup> Like West, we use the term ‘emphasis’ to indicate the pragmatic prominence of an element within a particular syntactic construction (such as the -cā co-ordinate compound) or domain (basically, the phrase, clause or sentence), by referring to the information structure framework (see Lambrecht 1994). It is necessary to underline how important the interpretation of the internal information hierarchy can be in the study of literary text syntax, linking our discussion here to that of Dik, regarding word order in Greek tragic dialogue (Dik 2007). It is indeed possible, as she argued, to give an account of WO when one is dealing with poetic texts, like the Avesta. On the one hand, explicit consideration of ‘mobile’ and ‘not-so-mobile’ words leads back to a discourse centered on the notion of markedness where the persistence of the second pattern represents a made-up paradigm; on the other hand, dealing with one of the former kind, a clitic, it seems that order/placement and emphasis constitute a single syntactic feature which ought to be seen not as a paradigm-derived characteristic but as a function of discourse grammar. For this reason the present study will consider it as a distributive trigger, not in spite of its behaviour, but rather because of it.

### 2.3. About the Corpus

Corpus selection involved a set of texts which are widely considered as the main source for the older stage of the literary language of the Avesta. In particular, the group

<sup>6</sup> See Skjærvø (2006) for a more detailed analysis of the “poetic word order” in OA, relating to phenomena such as the use of the vocative and dual, parallelism, chiasmatic structures etc.

<sup>7</sup> Or rather ‘rhetorical stress’, in which sense Kellens and Pirart (1988–1991) consider one of the uses of -cā he defines ‘emphatic’ (see 1.1.).

<sup>8</sup> In Dover (1960) we find the first systematic definition of the logical determinants of word order in Greek in which emphasis appears: “‘Emphatic’ is commonly used to describe both words which are the focus of the speaker’s emotion and words which are essential to the clarity of his argument.”

of seven chapters of the book of *Yasna* (Y.28–Y.34) called *Ahunavaiti Gāthā*<sup>9</sup> has been chosen, which comprises 100 stanzas of three verses each in a generally regular 7+9 syllable meter.

The choice to restrict the analysis to this specific set of texts has two main purposes. In the first place the need to investigate the type of linguistic material that allows for it to be placed on the level of a diachronic variation *continuum* represented by the language of the Avesta.<sup>10</sup> Secondly, our need to collect data from a highly representative closed field of OA inquiry but which is still open to a further diachronic comparison with earlier texts. The transcription criteria used are those of Humbach (1991), who is also the main reference for issues regarding translation.<sup>11</sup>

### 3. Distribution Analysis

#### 3.1. Phrase Level

In the corpus there are 53 in-phrase occurrences of *-cā* co-ordinate constructions.<sup>12</sup> Given their heterogeneity, they have been subdivided into bimember structures (BS) and polymember structures (PS). Of these 53 items, 49<sup>13</sup> (92%) are cases of nominal conjunction and 4<sup>14</sup> (8%) of verbal conjunction. The functional domain of the nominal conjunctions is particularly broad and does not exclude any kind of case inflection: we find seven nominative<sup>15</sup> conjoined phrases, 14 accusatives,<sup>16</sup> seven genitives,<sup>17</sup> six instrumentals,<sup>18</sup> four locatives,<sup>19</sup> two ablatives,<sup>20</sup> four vocatives<sup>21</sup> and five

<sup>9</sup> Describing this group of *Yasna* in 1887, M. Müller used these words: “This Gatha, consisting of seven chapters of the *Yasna* (XXVIII–XXXIV), takes its name from the similarity of its metre to that of the Ahuna-Vairya formula which also occurs before it in the *Yasna*. It is composed of homogeneous material, but as its material is also homogeneous with that of the other Gathas, it probably owes its existence as a group of sections to its metrical form. Its lines were intended to number sixteen syllables, and they are put together in stanzas of three.”

<sup>10</sup> We do not intend to give in-depth consideration to the much-debated issue of dating Avesta texts here. Nevertheless, we do refer to the diachronic *continuum* of the Avestan language, noting the internal complexity of the Avesta as a literary monument, a complexity evidenced by the possibility of distinguishing a variety of ‘sub-languages’ encoded in its parts. Indeed, these sub-varieties are distinguished on a diachronical basis through the study of the linguistic changes they attest in Old Avestan, Young Avestan, and, more recently, ‘Middle Avestan’ (Tremblay 2006).

<sup>11</sup> In particular, use has been made of the digital edition provided by the TITUS project (<http://titus.uni-frankfurt.de/indexe.htm>), following Humbach’s aforementioned transcription criteria.

<sup>12</sup> Appendix I lays out the whole set of phrasal occurrences, analysed and translated.

<sup>13</sup> Nos 1, 3–15, 17–26, 28, 30–53.

<sup>14</sup> Nos 2, 16, 27, 29.

<sup>15</sup> Nos 6, 14, 15, 18, 47, 50, 51.

<sup>16</sup> Nos 7, 9–11, 19, 20, 24–26, 34, 35, 37, 40, 43.

<sup>17</sup> Nos 1, 3, 36, 42, 44, 52, 53.

<sup>18</sup> Nos 4, 8, 17, 28, 30, 46.

<sup>19</sup> Nos 12, 13, 21, 41.

<sup>20</sup> Nos 31, 32.

<sup>21</sup> Nos 23, 33, 39, 49.

datives.<sup>22</sup> Thirty-five out of 51 phrasal structures have a bimember structure, while 16 have a polymember one.<sup>23</sup>

### 3.1.2. Phrase Constituents

Focusing on the distribution within the individual conjoined element, Table 1 provides an overview of the binding dynamic in relation to its progressive position: every constituent has been named by adding a progressive alphabetical character (A, B, C etc.) to the number of the occurrence as listed in Appendix I. Particular attention is paid to the member structure by distinguishing its internal hierarchy in terms of ‘heads’ and ‘modifiers’.

**Table 1**

H		H + M			
Ø	cā	Ø	H cā	M cā	H cā M cā
1B, 2B, 22A, 23A, 24A, 26A, 27A, 28A, 29A, 30A, 32A, 33A, 34A, 35A, 38A, 40B, 41C, 42B, 43A, 43C, 43E, 44A, 44B, 45A, 45B, 47A, 47B, 49A, 49D, 50B, 50C, 52B	1A, 2A, 3A, 3B, 4A, 4B, 5A, 5B, 7A, 7B, 8A, 8B, 9A, 9B, 10A, 10B, 11B, 12A, 12B, 13A, 13B, 14A, 14B, 15A, 15B, 16A, 16B, 17B, 18A, 18B, 22B, 23B, 24B, 25B, 26B, 27B, 28B, 29B, 30B, 31B, 32B, 33B, 34B, 35B, 38B, 39B, 39C, 40A, 40C, 41A, 41B, 42C, 43B, 43D, 44C, 45C, 48A, 49B, 50A, 51A, 51B, 51C, 51E, 52C, 53B, 53C, 53D	20A, 25A, 31A, 36A, 39A, 42A, 46A, 46C, 49E, 53A	6A, 6B, 11A, 17A, 19A, 19B, 21B, 36B, 37B, 38C, 47C, 48B, 48C, 52A	20B, 21A, 37A, 37C, 46B, 51D	49C

Abbreviations: H = head, M = modifier, Ø = absence of occurrence

The total of 130 conjoined elements are composed of the head alone in 99 cases (76%), while in 31 cases (24%) it is possible to locate one or more modifiers added to the head. 81 of the total of 88 -cā occurrences have the particle bound to the member head, whereas on six occasions it binds to a modifier, and on one occasion to both of them.

<sup>22</sup> Nos 5, 22, 38, 45, 48.

<sup>23</sup> The majority of PSs (12 out of 16) are trimember structures (nos 37–41, 43–47, 49 and 51). There is one case of a quadrimember structure (no. 36) and three cases of pentamember structures (nos 42, 48 and 50).

Table 2 provides a summary of the occurrence positions by focusing on the particle presence/absence on the constituents when these are seen as stages of the enclitic binding movement.<sup>24</sup>

**Table 2**

	<i>Mono-occurrences</i>			<i>Poly-occurrences</i>				
	First	Inter.	Last	First + Inter.	Inter. + Last	First + Last	Inter.s	Each
BS	2		15					18
PS	1	2	3	1	2	2	3	5
Tot.	<b>3</b>	<b>2</b>	<b>18</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>23</b>

As is clear, both BS and PS do not allow (and therefore, much less share) any single preferential distributive pattern. It is possible to record a 'non-preference' of BSs with regard to first member distribution, but at most this is only a slight tendency given that it occurs in just two out of 36 occurrences of this kind. PSs display an even more indeterminate behaviour: out of a total of 17 occurrences, eight patterns are testified in the same measure.<sup>25</sup> Finally, as the data testify, there is no evidence of direct and exclusive correspondence between the number of compound members and one specific distribution. Neither the presence of member composition nor any other factor emerging from the quantitative analysis seems to constitute a valid distribution trigger.

### 3.1.3. *The -cā-phrase and Emphasis*

The discussion of emphasis and OA word order becomes at this point a potential interpretative key in establishing distributive regularities within the *-cā*-phrase. By observing its 'anatomy', it is possible to distinguish two different types in order to check for the presence or the absence of Emphatic Distraction (henceforth ED). After a complete survey of all 53 phrases,<sup>26</sup> it is possible to point out some particular connections of this feature with respect to the distribution.

Firstly, it is necessary to define precisely not just the process itself, but its terms of interest for our analysis, in order to understand its possible influence on distributive sets. The theoretical assumption is that conjoined elements share the emphasis within the clause, but that they are at different points on an 'emphatic scale' within the phrase itself, as it is shown in Figure 1.

<sup>24</sup> Table 2, in other words, summarises placement dynamics, taking into account binding phrase constituents which *-cā* binds with as they are fixed within the phrase itself.

<sup>25</sup> It is worth noting that these eight distributive patterns represent the whole scenario of possible distribution within a conjoined phrase.

<sup>26</sup> Table 4 in Appendix II provides an exhaustive overview on the junction between phrasal distributions and emphatic distraction by presenting all 53 occurrences.



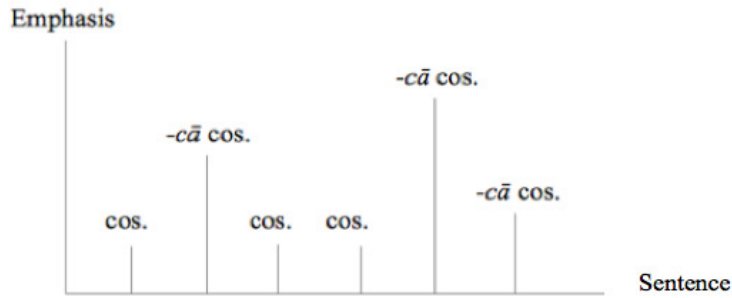


Figure 1. Representation: emphatic gradation in sentence

Any preliminary evaluation of data should consider the kind of distraction pertaining to the conjoined phrase structure, caused by the infixion of other linguistic items between the constituents of the conjunction itself.<sup>27</sup>

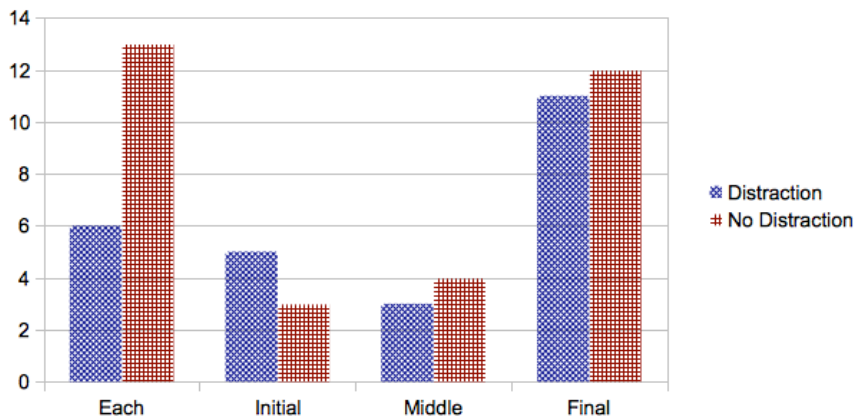


Figure 2. Distribution sets occurrences

Indeed, Figure 2<sup>28</sup> shows how -cā-phrases are very often subject to distraction. In particular, ‘final-member’ distributions display this tendency, with an incidence equivalent to nearly half the occurrences. Consequently, it is important to establish how much this flexibility of position is influenced by the internal emphatic scale of the compound. In this respect, by examining -cā binding phrase constituents illustrated in Table 2, some factors that might lead to an explanation of the issue emerge.

<sup>27</sup> As an example, in occurrence no. 22 (see Appendix I) we have: *dāidī ašādā darəgāiīū ərašuuāiš tū uxđāiš mazdā zaraθuštrāi aojōnghuuəf rafənō ahmaibiiācā* (“grant with Truth as a long-lasting gift, through (Thy) exalted statements, O Wise One, strong support to Zarathustra and to us”) where the conjoined phrase *dāidī zaraθuštrāi ahmaibiiācā* evidences chiastic distraction between the initial verb and the first member and between the first member and the second.

<sup>28</sup> Figure 2 has the four basic distribution sets (named on the basis of the particle binding position, which can be in first, middle, last position or on each member) on the horizontal axis. On the other hand, the vertical axis shows the number of occurrences.

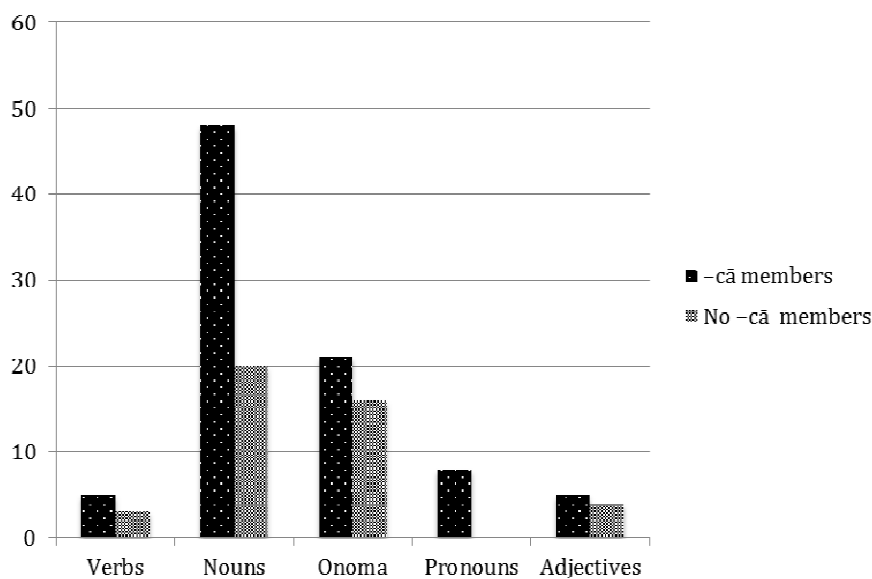


Figure 3. Phrase constituents: grammatical categorisation

Figure 3, therefore, distributes all the conjoined phrase constituents shown in Table 2 on the basis of their grammatical nature, combining this datum with the position of the particle. Some remarkable facts clearly emerge regarding such positioning:

- Both the absolute majority and the relative majority of the related member grammatical categories support the particle presence. Thus, prototypically, elements in enclitic conjunctions attract clitic binding; in the case of *-cā*, this occurs two times out of three.<sup>29</sup>
- All seven pronouns constituting a phrase constituent carry the *-cā*.
- ‘Common’ nouns (which have been distinguished from ‘proper’ nouns due to the high frequency of conjoined phrases composed by the latter) carry *-cā* in the vast majority of cases. Statistics appear to be influenced by the high number of BSs of the ‘*Acā Bcā*’ type, formed from a pair of (often abstract) nouns.
- Verbs and adjectives appear to act in a same way with a close bound/unbound ratio.

To sum up, a fairly clear picture of the role of emphasis within *-cā* distribution strategies is obtained, which also shows that *-cā*-phrases are a syntactic domain which is particularly susceptible to the dynamics of distraction. Each-member distributions, in most cases BSs, occupy the cohesion pole: members, for the most part nouns carrying the clitic, occur in closed position and with the same functional mor-

<sup>29</sup> There are 87 *-cā* members, whereas non *-cā* members amount to 43. Thus the second group represents roughly one third of the total.

phology. It is a strongly emphatic kind of conjunction and has a focalised position in the sentence. In contrast, last-member distributions have the highest number of distraction cases. ED incidence becomes important due to the particle binding on the distracted member, which thus acquires a particular prominence in the sentence. On the other hand, distracted members not carrying the *-cā* tend to be highly topicalised and are usually found to be in synonymic relation with one, or more, of the other members. In this perspective, what is striking is the systematic binding on conjoined pronouns, which seems to embody a structurally focalised category within the co-ordinate conjunction.

### 3.2. Sentence Level

A smaller number of *-cā* occurrences clearly operates at sentence level. That is, not every constituent involved in *-cā* conjunction lies on the same sentence ground, but realises different sorts of conjunctions, sometimes operating in single occurrence distribution and at other times being distributed over more elements. However, for reasons of convenience, hereinafter they can be defined by the synthetic term ‘clausal conjunctions’.

#### 54. Y.28.5AB

<i>aṣā</i> <sup>30</sup>	<i>kaṭ</i>	<i>ṅβā</i>	<i>darāsānī</i>	<i>manascā</i>	<i>vohū</i>
INS;SG	CONJ	ACC;SG	1;SG;AOR;SBJ	ACC;SG + cā	ACC;SG
Truth	you that		shall I see	and Good Thought	

<i>vaēdamnō</i>	<i>gātūmcā</i>	...	<i>səraoṣəm</i>
PTCP;PRS;NOM;SG	ACC;PL + cā		ACC;SG
who accept	accesses		and obedience

*O Truth, shall I see Thee, I who accept both Good Thought and [...] obedience to Him.*

Structure:<sup>31</sup> O1’ V1 O1’cā V2 O2’cā O2’’

In this sentence *-cā* distributes on the objectival phrases relating to V1 and V2 (*darāsānī* and *vaēdamnō*). Here a clausal conjunction occurs by co-ordinating two of

<sup>30</sup> Here, as in other occurrences, we find a proper name (the name of a god to be precise) with the NOM/ACC/VOC function carrying an instrumental ending. Such abnormal frequency of Gathic entity names declined in the instrumental case is explained in Kellens–Pirart (1988): the instrumental of that kind of noun is sociative, indicating accompaniment with the subject. Previously this had been justified by Pedersen (1907) and Schwyzler (1927) as case substitution in the presence of transitive verbs.

<sup>31</sup> Sentence occurrence structures will be summarised using their base constituent abbreviations. In particular, ‘O’ will stand for object, ‘S’ for subject, ‘V’ for verb and ‘C’ for complement. Any other abbreviation will follow the conventions adopted in the rest of the paper.

the four accusative obj.s in chiasmic form. Therefore, this kind of structure entails an involvement of the regent verbal form, which, in turn, is involved in the conjunction and, given their cognate semantics, benefits in terms of cohesion.

## 55. Y28.7bc

<i>maibiiācā</i>	<i>dāstū</i>	<i>mazdā</i>	<i>xšaiiācā</i>
DAT;SG + cā	2;SG;AOR;INJ	VOC;SG	2;SG;AOR;OPT + cā
To me	you give	O Wise One	and rule

*Grant (these things) to me, O Wise One, and rule.*

Structure: C1'cā V1 C1'' V2cā

This is a clear case of verbal conjunction with *-cā* bound to the second and last constituent. This occurrence collocates outside the 'phrase sphere' of distribution, because of the distinct semantics of the verbs, their separate positions and, most of all, the distance between the two verbal modalities: an Injunctive (*dāstū*), Old Avestan mood of 'concrete reality' (see Kellens 1984), in contrast to an Optative (*xšaiiācā*), mood of 'possibility'.

## 56. Y.30.3bc

<i>asruuātəm</i>	<i>manahicā</i>	<i>vacahicā</i>	... <i>āscā</i> ...	<i>vīšiiātā</i>
3;PL;AOR;IND;MED	LOC;SG + cā	LOC;SG + cā	GEN;DU + cā	3;PL;AOR;INJ;M
They have been listened	in spirit	and in word	and between them	they have chosen

*They have become famed (manifesting themselves) in dreams and in words [...] and between these two, it has been discriminated rightly.*

Structure: V1 C1'cā C1''cā C2cā V2

The particle here is bound to both a locative phrase and a partitive genitive. Indeed, the latter evidences the one purely sentence-occurrence of *-cā*, which works to co-ordinate the verbal processes of SRU- (to listen) and VI- (to haunt). However, the particle distribution of each-member on the locative phrase could have the elliptic function of marking the differential value of genitive distribution.

## 57. Y.30.7a

<i>ahmāicā</i>	<i>xšaθrā</i>	<i>jasat</i>	<i>manajhā</i>	<i>vohū</i>	<i>ašācā</i> ...
DAT;SG + cā	INS;SG	3;SG;PRS;INJ	INS;SG	INS;SG	INS;SG + cā
And to him(it <sup>32</sup> )	Power	has come	(and thanks to)	the Good Thought	and Truth

*dadāt*

3;SG;INJ;PRS

has given

<sup>32</sup> The pronoun is masculine, but it would be better translated as neuter as it refers to the word *ahūm*, the accusative singular of *ahu-*, which means 'life', 'existence', 'world'.

*If one comes to him thanks to Power, Good Thought and Truth (then stability) is granted.*

Structure: O1’cā S1 V1 S2’ S2’’ S2’’’cā V2

This is a case of conjunction which has two interesting characteristics. In first place we find the first distribution on a dative indirect obj. (O1) which precedes the V1 subject and V1 itself, whereas the second clause is a three-subject chain with a distribution on the latter subject, followed by V2. Therefore, we are dealing with two semantically independent clauses, conjoined in a structurally asymmetric way. There is also another notable fact: *ahmāicā* is the initial lexeme in the triplet; it is a personal pronoun and refers to the previous triplet<sup>33</sup> in the object of the previous sentence. Humbach reads this *-cā* as a conditional clause complementizer, so it derives his translation.

58. Y.31.16c

<i>aṅhaṭ</i>	<i>yā</i>	<i>śīiaoḡanascā</i>
3;SG;AOR;SBJ	OBJ	INS;PL + cā
It will be about	you	and through actions

*(I ask when) it will be available and with what actions.*

Structure: V1 O1 C1 cā

This is the one absolutely final occurrence of the particle in the corpus. It binds to an Ins. which follows the V1 obj., in single distribution and it seems quite superfluous semantically, unless we take into account a possible differential value.

59. Y.33.4abc

<i>akāmcā</i>	<i>manō</i>	<i>yazāi-apā</i>	<i>xvaētāušcā</i>	<i>tarāmatīm</i>
NOM;SG + cā	NOM;SG	1;SG;PRS;IND	ABL;SG + cā	ACC;SG
And the evil spirit	I	will keep away	from the family	the scorn
<i>vārəzənaśīiicā</i>	<i>nazdištqm</i>	<i>drujəm</i>	<i>airīia-manascā</i>	<i>nadəntō</i>
GEN;SG + cā	ADJ;ACC;SG	ACC;SG	GEN;SG + cā	PRT;PRS;ACC;PL
and from the house	by the nearest	the lie	(that) the leader	diminishes
<i>gāušcā</i>	<i>vāstrāṭ</i>	<i>acištəm</i>	<i>maṅtūm</i>	
GEN;SG + cā	ABL;SG	ADJ;ACC;SG	ACC;SG	
and in cow’s	grass	the worst	counsellor	

*I will turn disobedience and evil thought away from Thee, as well as the scorn of the family and the deceit which is neighbour to the community, and the despisers of the tribe and the worst counsel from the pasture of the cow.*

Structure: S1cā V1 C1’cā O1 C1’’cā O1’’ S2cā V2 C2cā O1’’’’

<sup>33</sup> That is Y.30.6, in which the pronoun referent (see note 21) is found in line ‘c’. On *-cā* structures built over more than one stanza cf. Klein (1985, pp. 230–247).

Here we have a kind of symmetrical structure where two sentences are conjoined by the binding of the particle to the two subj.s and to the genitives referring to the obj.s. What is most striking is the fact that the co-ordinative value of *-cā* does not operate within the clause, where it would be found on elements that do not require any conjunction, but within the whole sentence, deriving its conjunctive value only from the addition of the parallel enclitic.

## 60. Y.31.21ab

<i>mazdā</i> NOM;SG The Wise One	<i>dadā</i> 3;SG;PRS;INJ will give	<i>ahurō</i> NOM;SG Ahura	<i>hauruuatō</i> GEN;SG by integrity	<i>amərətātascā</i> GEN;SG + <i>cā</i> and immortality	<i>būrōiš (ā)</i> ADV;ABL;SG and plenty
<i>ašaxiiācā</i> GEN;SG + <i>cā</i> by Truth	<i>xvāpaiθiiāt</i> ADJ;ABL;SG which produces good posterity,		<i>xšaθrahiī</i> GEN;SG by Power	<i>sarō</i> ABL;SG in association with	<i>vaṅhəuš</i> GEN;SG Good
<i>vazduuarē</i> ACC;SG the charmer	<i>manəḥō</i> GEN;SG Thought	<i>yā hōi</i> NOM+ENCL who in	<i>mainiū</i> INS;SG in spirit	<i>šiiəθanāišcā</i> INS;SG + <i>cā</i> and in action	<i>uruuaθō</i> NOM;SG (honours his) debt

*Mindful of integrity and immortality, the Ahura grants from His own mighty shelter of Truth and Power the fat of Good Thought (to him) who (is in ally) in spirit and actions.*

Structure: S1 V1 C1' C1''cā C1''''cā C1''''''A C1''''''B/S2 C2' C2''cā (V2) O2

This is a difficult case to interpret. The first two distribution occurrences work within quite a standard phrasal conjunction frame. What indicates a clause-functional distribution is the third occurrence: it binds to the second member of an instrumental phrase which operates at a lower level with respect to that carrying the previous two. As a matter of fact *šiiəθanāišcā* refers to a pronoun (*yā hōi*) which is the subj. of an unexpressed-verb in a subordinate clause.

## 61. Y.30.11bc

<i>xvīticā</i> INS;SG + <i>cā</i> Freedom	<i>ənəitī</i> INS;SG and slavery	<i>hiiaṭcā</i> ADV + <i>cā</i> and so	<i>darəgēm</i> NOM;SG the long,	<i>drəguuōdəbiiō</i> DAT;PL for the lie-followers,	<i>rašō</i> NOM;SG damage
<i>sauuacā</i> NOM;SG + <i>cā</i> and the strength	<i>ašauuabiiō</i> DAT;PL of Truth				

*(which convey) mobility and immobility, and what long-lasting harm for the deceitful (as well as) the benefits for the truthful.*

Structure: C1' C1'' Advcā C1'''' ... C1<sup>v</sup>cā

This sentence contains a pure adverbial conjoining occurrence of *-cā*, followed by another single – but distinct – occurrence on a fourth nominal phrase member.

## 62. Y.31.12ab

<i>vācəm baraitī</i>	<i>miḡahuuacā</i>	<i>vā</i>	<i>əṛəṣuuacā</i>	<i>vā</i>	<i>vīduuā</i>
ACC;SG 3;SG;PRS;IND	NOM;SG + cā	CONJ	NOM;SG + cā	CONJ	PRT;PRF;SG
The voice one raises	a false speaker	or	a skilled one	or	one who knows
<i>vā</i>	<i>əuuīduuā</i>	<i>vā</i>	<i>ahiiā</i>	<i>zəṛədācā</i>	<i>manəḡhācā</i>
CONJ	ADJ;NOM;SG	CONJ	2;SG;PRS;IMP	INS;SG + cā	INS;SG + cā
or	one who does not know	or	one who would be	in faith	and in spirit

*A man of crooked words or one of plain words, (who) raises the voice, a knowing one or a ignorant one, with his heart and thought.*

This use of *-cā* is finalised to strengthen the orthotonic occurrence of *vā*<sup>34</sup> by adding its co-ordinative value. Notably, *-cā* is not distributed in correspondence to each *vā* occurrence. This seems to suggest a genuine emphatic value for the first occurrence (*əṛəṣuuacā*) and maybe also an anaphoric value (in addition to being purely co-ordinative if seen within the instrumental phrase) for the latter two.

## 3.2.1. Clausal Behaviour

When *-cā* is used to co-ordinate clausal elements of different syntactic values, it is possible to distinguish between symmetrical<sup>35</sup> and asymmetrical<sup>36</sup> structures. This tendency signifies the absence of a preferential binding position between branches of co-ordinated sentences through ellipsis.<sup>37</sup>

Speaking in general terms, it is possible to observe an overall reduction in the number of occurrences when they function in conjoining independent phrases or clauses. Interestingly, we may find a parallel situation in the in-sentence use of the Grk. *-τέ*. As Dunkel reminds us: “By far the most frequent use of *-τέ* [...] is to conjoin phrases and sentences, not single words. And in this function, we observe a clear shift from the single to the double use through time” (Dunkel 1982, p. 134).

However, what seems to be a specific feature of *-cā* is the possibility to connect textual segments by giving their relation an emphatic tone. Nevertheless, single occurrences in clausal conjunctions may have the extra-value of marking those transitions in sentences where the paratactic character of the discourse risks being hidden by a

<sup>34</sup> An adversative particle which is also able to occur in enclitic form.

<sup>35</sup> Nos 54–56, 59, 61, 62.

<sup>36</sup> Nos 57, 58, 60.

<sup>37</sup> In recent years, many studies in discourse analysis and in typological linguistics have focused on the wide range of functions relating to the elliptical treatment of grammatical words (see, among others, Kehler 2000 and Frazier–Clifton 2006). For an exhaustive coverage of the relationship between ellipsis and conjunction, see te Velde (2000).

wide use of peripheral constituents.<sup>38</sup> Not surprisingly then, these are occurrences present in the corpus which, from a purely grammatical point of view, are unmotivated and superfluous, as seen, for example, in nos 58 and 59 and, partially, in no. 62.

### 3.2.2. Wackernagel's Law and the Second Position in Clausal Conjunctions

In the future, we foresee the need to tackle the topic of those occurrences that, given their position in the sentence, are affected by Wackernagel's Law<sup>39</sup> (WL). At the present state of research, there are no extensive studies regarding the ties between OA and WL, and despite the fact that OA is usually claimed as a 'Wackernagel language', it seems that much work still needs to be done on Avestan clitic framing. However, as will emerge from the evidence of the present analysis, second position is crucial when focusing on *-cā* clausal conjunctions.

Table 3<sup>40</sup> distinguishes between 'lexical words' and 'syntactic words' in order to examine the question of WL. Although this seems to be an approximative distinction from an epistemic point of view, it also emerges as an important issue in the debate regarding the effectiveness of applying WL.

**Table 3**

Lexical Words		Syntactic Words	
1st Position	Other Position	1st Position	Other Position
54B, 56A, 58A, 62A	54A, 56B, 57B, 59B, 59C, 59D, 59E, 60A, 60B, 60C, 61B, 62B, 62C	55A, 55B, 57A, 59A	56C, 61A

As is clear, a fair number of occurrences bind to the first word of the clause, as far as both lexical and syntactical words are concerned, which go on to cover the second position. More interestingly, in most cases (seven out of nine) they are the first occurrence in the compound, because those following prefer other positions (we find only two out of 15 first compound occurrences in other positions).

It seems plausible to consider this tendency as a prototypical distribution of emphasis in clausal conjunctions, which aligns with WL. It is worth noting that clause

<sup>38</sup> Like, for example, elencative chains.

<sup>39</sup> This regards the theoretical formulation ascribable to Delbrück (1878) and Wackernagel (1892) on the second position of the sentence as the preferential site in clitic binding. Their thesis eventually became so influential that the term 'Wackernagel's position' was coined to refer to the second syntactic position in a sentence.

<sup>40</sup> Table 3 illustrates in-sentence occurrences by noting their progressive placement alphabetically. First positions are intended from a clausal point of view. Thus, one sentence distribution includes not just one first position, but as many as the number of clauses in the conjunction.



domain, and the sentence syntactic level in general, compared to phrase one displays a significantly higher number of alternative combinations of constituent categories, and also a much more complex set of grammatical constraints. It appears acceptable enough to view WL as an IE standard strategy to place unemphatic words like clitics in an unemphatic position such as the second, exploiting their ‘weak’ prosodic nature. Even so, WL can be violated when clitics themselves are used as means of emphasis, and in our corpus this occurs more frequently on the right side of the sentence, i.e. where the emphasis is of particular importance to maintain the cohesion of the discourse.

## 4. Variations in Distribution

### 4.1. The Enclitic Conjunction and Avestan Discourse

At the end of our analysis we return to our starting point, by noting that the enclitic co-ordinate conjunction is a fundamental aspect of textual cohesion in OA. We have noted, following Klein (1985, pp. 16–45), that it participates in a restricted set of features, including asyndeton, ellipsis, anaphora and comitative/sociative instrumentals, finalised towards ‘keeping alive’ the references of the subunits in the discourse. In contrast to Klein’s extensive work on Rigvedic material, our Gathic corpus has shown how of these five features, enclitic conjunction plays a major role and turns out to be a prime instrument in maintaining a high level of cohesion. The other features are indeed used, but they appear to have suffered from the overlapping of -cā, or rather to have become less strong in signaling cohesion in Avestan discourse.

### 4.2. Towards a Domain-based Distribution System

As is evident, -cā has an elective occurrence domain and this is the phrase. Nevertheless, as the preceding argumentation has attempted to underline, its use goes beyond this boundary and becomes functional ‘across the board’, with a pronounced distributive variation which we have explained in terms of emphasis.

In cases of BS phrases, -cā is distributed statistically following the most common IE – which we could hereupon call the ‘unmarked’ – pattern: second-member occurrence (i.e. of the type in Lat. *senatus populusque* and Skr. *devāsya mārtyasyaca*); this is followed by another, marked in an emphatic way: each-member occurrence (i.e. Lat. *natumque virumque* and Skr. *pācantamca stuvāntamca*).

First member distribution is hardly present: it was found in only 6% of cases,<sup>41</sup> which leads us to believe that word order prominence, in most cases, responds to the task of emphatic marking. Thus, diachronically, the co-ordinate bimember phrase domain aligns to other IE evidence with a double distribution pattern, in turn probably

<sup>41</sup> However, these cases are more than notable: occurring in a such a restricted corpus, they again testify to the loosening of adherence to IE patterns.

hierarchised internally, but not to the same extent as in other IE groups. Otherwise, as the syntactic domain grows in width, moving to polymember phrases until it reaches clausal conjunction, particle binding preferences lose definiteness, perhaps to the extent that they disappear from the inventory of speaker usage, covering every possible distributive pattern.

Therefore, it is plausible to assume that two distinct functional *-cā* variants exist. A first, triggered by the bimember co-ordinate compound, which continues the IE common outcome of PIE *\*-k<sup>w</sup>e* grammaticalisation; and a second which, starting from this stable use, increases its functional value, becoming the preferential co-ordinate element in the higher domains, necessarily adding more syntactic and pragmatic values. Only a complete and attentive examination of all the influential parameters of a segmental and supra-segmental nature will make it possible to figure out just how those values interact to define the macro-syntactic *-cā* distribution.

Finally, it is important to emphasise how both detachment from a rigidly unique IE distributive pattern and the development of a higher domain variant, configure in being symptoms of the same process of promotion of this grammatical item in becoming of such importance to textual coherence.

## Conclusion

In the present study, all the occurrences of the enclitic co-ordinate conjunction *-cā* in *Ahunavaiti Gāthā* have been reported, described, analysed and interpreted.

A quantitative analysis of phrase distribution in addition to a survey of sentence occurrences reflect a generally high index of variation in particle placement. Surprisingly, there is no direct correspondence between the grammatical nature of compound constituents and preferential distribution: given two enclitic conjoined compounds which structurally look like the same, *-cā* is distributed (and statistically is seen to be distributed) in two different ways. Therefore, it is possible to argue that *-cā*-compounds are not morphologically sensitive structures.

Despite this, not all the syntactic data appear to allow for the same variation coefficient in distribution. Bimember phrases behave more like PIE ones, aligned to just two of the three possible distributions. Even in these cases, however, OA is distinguished by its genealogical character without implying a hierarchy between single and double distribution on a markedness scale. In our corpus, in fact, there are the same number of occurrences in both groups.

In contrast, higher syntactic domains display a higher variation in particle distribution, which in-sentence is able to conjoin with what appears to be total freedom. The reasons for this fluidity is partially beyond the scope of this study, but appears to conform to Wackernagel's Law in a fair number of cases, regarding the first occurrence in the sentence. Given the small number of in-sentence occurrences in our corpus, it is evident that a wider-ranging study may shed further light on this aspect of the question. At any rate, a preliminary explanation of these terms of variation has been suggested, indicating an OA functional innovation in the use of *-cā*, that, for reasons

of textual cohesion, we have tried to interpret from the perspective of emphasis distribution. This also becomes the preferred means of conjunction in clause and sentence domains.

## Appendix I Phrase Distributions<sup>42</sup>

### *BS distribution:*

#### *Acā B*

- |            |   |     |   |     |
|------------|---|-----|---|-----|
| 1. Y.32.9c | <i>ašāicā</i><br>DAT;SG + cā<br>To the Truth and          |     | <i>yūšmaibiiā</i><br>PRN.DAT.PL<br>to you     |     |
| 2. Y.34.6c | <i>yazəmnascā</i><br>PTCP;PRS;NOM;SG + cā<br>Whorshipping | ... | <i>stauuas</i><br>PTCP;PRS;NOM;SG<br>praising | and |

#### *Acā Bcā*

- |             |  |  |   |   |   |
|-------------|--|--|---|---|---|
| 3. Y.28.2bc | <i>(ahuuā)</i><br>(GEN.DU)<br>(The existences)               | <i>astuuatascā</i><br>GEN;SG + cā<br>of bone | and   | <i>hiiatcā</i><br>PRN + cā<br>that                    | <i>manaḥhō</i><br>GEN;SG<br>of thought                      |
| 4. Y.28.10a | <i>yāṅg</i><br>ACC;PL<br>For those who (are just)            | <i>ašāatcā</i><br>GEN;SG + cā<br>of Truth    | ...   | and   | <i>vaḥhāušcā ... manaḥhō</i><br>GEN;SG + cā<br>Good Thought |
| 5. Y.29.4b  | <i>daēuuāišcā</i><br>INS;PL + cā<br>By daēvas                | and  | <i>mašiiāišcā</i><br>INS;PL + cā<br>mortals       |   |   |
| 6. Y.29.6c  | <i>ḥsuiiāntāēcā</i><br>DAT;SG + cā<br>For the cattle-breeder | and  | <i>vāstriiāicā</i><br>DAT;SG + cā<br>the herdsman |   |   |
| 7. Y.30.1b  | <i>staotācā</i><br>ACC;PL + cā<br>both praises for (Him),    | <i>ahurāi</i><br>DAT;SG<br>the Ahura,        | and   | <i>yesniiācā</i><br>NOM;PL + cā<br>worshipful (words) |   |

<sup>42</sup> The glosses closely follow Humbach’s translation of the text (Humbach 1991). In some cases (nos 9, 29, 48, 50 and 52), single lexical choices have been adjusted to enhance their out-of-context readability.

8. Y.30.4b *gaēm̄cā*      *ajiiāitīm̄cā*  
ACC;SG + cā      ACC;SG + cā  
the primal vitality and the lack of vitality
9. Y.31.3a *āθrācā*      *ašācā*  
INS;SG + cā      INS;SG + cā  
By means of fire and spirit
10. Y.31.11a *gaēθāscā*      (*tašō*)      *daēnāscā*  
ACC;PL + cā (2;SG;AOR;INJ)      ACC;PL + cā  
the cattle    you shaped    and the individualities
11. Y.31.11c *šiiāoθanācā*      *sānghqscā*  
ACC;PL + cā      ACC;PL + cā  
the actions    and    the proclamations
12. Y.31.18a (*mā*)      *drəguuatō*      *maqθrascā*      (*gūštā*)      *sāsnāscā*  
(NEG)      GEN;SG      ACC;SG + cā      (3;SG;PRS;INJ)      ACC;PL + cā  
(Let no)    of the deceitful one    formulas    (listen)    and    teachings
13. Y.31.18c (*vā ādāt*)      *dušitācā*      *marəkaēcā*  
(3;SG;AOR;SBJV)      LOC + cā      LOC + cā  
(which leads)      to ruin    and    in a bad state of dwelling
14. Y.32.3b *drūjascā*      *pairimatōišcā*  
LOC;SG + cā      LOC;SG + cā  
In the lie    and    in the sick mind
15. Y.32.11b *aḡuhīscā*      *aḡhuuascā*  
NOM;PL + cā      NOM;PL + cā  
ladies    and    lords
16. Y.32.15a (*vīnānāsā*)      *karapōtāscā*      *kəuuītāscā*  
(3;SG;PRF;IND)      NOM;PL + cā      NOM.SG + cā  
(It is lost) (the group of)    *karapans*    and    *kavis*
17. Y.33.6c (*iziiāi*      *ahurā mazdā*)      *darštōišcā*      *həmparštōišcā*  
(1;SG;PRS;IND    VOC;SG)      ABL;SG + cā      ABL;SG + cā  
(I beg    O Wise Ahura) for Thy sight    and consultation
18. Y.34.5c *daēuuāišcā*      *xrafstrāiš*      *mašiiāišcā*  
INS;PL + cā      ADJ;INS;PL      INS;PL  
(to) the evil beasts, Daēvic as well as human
19. Y.34.11a *hauruuāscā*      (*xvarəθāiā*)      *amərətātāscā*  
NOM;SG + cā      (DAT;SG)      NOM + cā  
Integrity (to maintenance)    and    immortality

20. Y.34.15a *srauuāscā*      *śīiaoθanācā*  
 ACC;PL + cā      ACC;PL + cā  
 eulogies and      actions

### A Bcā

21. Y.28.1c *xratūm*      *manaḥhō*      ...      *gəušcā*      *uruuānəm*  
 ACC;SG      GEN;SG           GEN;SG + cā      ACC;SG  
 The intellect      Thought      and      cow's      soul
22. Y.28.6ab *dāidī*      *zaraθuštrāi*      ...      *ahmaibiiācā*  
 (2;SG;AOR;IMP)      DAT;SG           DAT;PL + cā  
 Grant you      to Zarathustra      and      to us
23. Y.29.8b *nə*      ...      *ašāicā*  
 DAT.PL           DAT;SG + cā  
 For us      and      for Truth
24. Y.29.10b *hušaitiš*      *rāmąmcā*  
 ACC;PL      ACC;SG + cā  
 Good dwellings      and peace
25. Y.29.7b *āzūtōiš*      ...      *mąθrəm*      *xšuuīdəmčā*  
 GEN;SG           ACC;SG      ACC;SG + cā  
 libation's      formula      and      milk
26. Y.30.3c *vahiiō*      *akəmčā*  
 ACC;SG      ACC;SG + cā  
 the better      and      the evil
27. Y.31.5b *vīdūiē*      ...      *məncā*      *daidiīai*  
 INF.PRF           LOC.SG + cā      INF.PRS  
 To learn      and      to keep in mind
28. Y.31.14a (*yā zī*)      *āitī*      *jəṅghaticā*  
 (NOM;PL)      3;SG;PRS;IND      3;SG;AOR;SBJ + cā  
 (which)      is happening      and      will happen
29. Y.31.22b *vacayhā*      *śīiaoθanācā*  
 INS;SG      INS;SG + cā  
 with word      and action
30. Y.32.4c *mazdā*      *ahurahiiā*      *xratəuš*      (*nasiiantō*)      *ašāačcā*  
 GEN;SG      GEN;SG      ABL;SG      (PRT;PRS;NOM;PL)      ABL;SG + cā  
 From Mazda      Ahura's      intellect      (straying) and      from Truth

31. Y.32.5a *hujiiātōiš*                      *amərətātascā*  
 ABL;SG                      ABL;SG + cā  
 (away) from good life and    immortality
32. Y.32.10b *gəm*    ...    *huuarēcā*  
 ACC;SG            ACC;SG + cā  
 the cow    and    the sun
33. Y.33.3c *ašahiia.* ... *vaṇhēušcā*      *vāstrē*      *manayhō*  
 GEN;SG      GEN;SG + cā      (LOC;SG)      GEN;SG  
 of the Truth and on the pasture of the Good Thought
34. Y.33.14c *səraošəm*                      *xšaθrəmcā*  
 ACC;SG                      ACC;SG + cā  
 (as well as) obedience    and power
35. Y.34.10b *vaṇhēuš*    *manayhō*    *spəntəmcā*    *ārmaitīm*  
 GEN;SG      GEN;SG      ACC;SG + cā    ACC;SG  
 of good thought      and    right mindedness

**PS distribution:**

36. Y.28.3ab *ašā*      *ufiianī*      *manascā*    *vohū* ... *mazdəmcā*    *ahurəm*  
 VOC;SG    1;SG;PRS;SBJ) ACC;SG + cā    ACC;SG    ACC;SG + cā    ACC;SG  
 You, O Truth, I will extol    and Good    Thought    and the Wise    Ahura
37. Y.28.8bc *fərašaōstrāi*    *maibiiācā*    *yaēibiiascā*    *rāṇhəyṇhōi* ...  
 DAT;SG      DAT;SG + cā    DAT;PL + cā    2;SG;AOR;SBJ  
 for Farasaotra,    and for me    and    for whom you    would give
38. Y.28.9ab *ahurā*      *mazdā*      *ašəmcā* ...      *manascā*  
 VOC;SG      VOC;SG      VOC;SG + cā      VOC;SG + cā  
 Oh Wise Ahura                      and Truth                      and Thought
39. Y.31.11b *gaēθāscā* ... *daēnāscā* ...      *xratūšcā*  
 ACC.PL+ cā    ACC.PL+ cā                      ACC;PL + cā  
 the herds...    the religious views ...    and    the intellects
40. Y.29.10a (*dātā*)                      *xšaθrəmcā* ... *hušəitīš*                      *rāməmcā*  
 (2;PL;PRS;INJ)    ACC;SG+ cā    ACC;PL                      ACC;SG  
 (grant us)                      the power,                      a good dwelling    and    the peace
41. Y.30.3b (*xvaḥənā*)                      *manahicā*      *vacahicā*      *šiiəθanōi*  
 NOM.DU                      LOC;SG + cā    LOC;SG + cā    LOC;SG  
 (The two dreams of)    thought,                      words    and    actions

42. Y.30.10c *vaṅhəuš manəṅhō mazdā ašaxiiācā*  
 GEN;SG GEN;SG GEN;SG GEN;SG + cā  
 of the Good Thought, of The Wise Lord and of the Thruth
43. Y.31.4ab (*yadā*) *ašəm ... (aṅhən) mazdāscā ahurāṅhō*  
 (COMP) NOM;SG (3;PL;PRS;SBJ) NOM;SG + cā NOM;PL  
 When the Truth would be invoked and The Wise One and the Ahuras
- ašicā ārmaītī*  
 INS;SG + cā INS;SG  
 and Reward and Right-Mindedness
44. Y.31.6b *hauruuatātō ašahiiā amərətātascā*  
 GEN;SG GEN;SG GEN + cā  
 of integrity, Thruth and immortality
45. Y.31.15c *vāstriiehiīā ... pasəuš vīrāatcā*  
 GEN;SG ABL;SG ABL;SG + cā  
 To the herdsman’s cattle and to the man
46. Y.32.5b *akā manəṅhā ... akascā mainiiuš*  
 ADJ;INS;SG INS;SG ADJ;NOM;SG + cā NOM;SG  
 Through bad thought, and bad spirit
- akā šiiəoθanəm*  
 ADJ;NOM;SG NOM;SG  
 and bad action
47. Y.32.12c *gərəhmā ... karapā xšəθrəmcā iṣanəm*  
 INS;SG NOM;SG NOM;PL + cā GEN;PL  
 The Grahuma the Karapan (prefers) and the power of craving
48. Y.33.1bc *drəguuataēcā hiiatcā ašāunē yeṅiiācāhēm-əmiīāsaitē*  
 DAT;SG + cā PRN;SG + cā DAT;SG GEN;SG + cā 3;PL;PRS;IND  
 To the follower of the lie and to the one of the order and to those who hold both
49. Y.33.7a *vahištā xvaiθiiācā mazdā darəšaṭ*  
 VOC;PL VOC;PL + cā VOC;SG ADJ + cā  
 O best ones and Autonomies, O wise One, the strong,
50. Y.33.8c *amərətāscā utaiiūtī hauruuatās*  
 NOM;SG + cā NOM;SG NOM;SG  
 Immortality, integrity (youth) and completeness
51. Y.33.11ab *mazdāscā ārmaitišcā ašəmcā*  
 NOM;SG + cā NOM;SG + cā NOM;SG + cā  
 The Wise One and Right-Mindedness and the Thruth

- (*frādat-gaēθəm*)      *manascā*      *vohū*      *xšaθrəmcā*  
(V-ADJ;NOM;SG)      NOM;SG + cā      NOM;SG      NOM;SG + cā  
(who favors the herd) and Good      Thought and the Power
52. Y.33.14b *manaḥascā*      *vaṇhəuš* ...      *šiiəθanahiīā* ...      *uxdaxiiācā*  
GEN;SG + cā      GEN;SG      GEN;SG      GEN;SG + cā  
To the Wise One,      ...      of the action      and      of the word
53. Y.34.2ab *manaḥhā*      *mainiiuścā*      *vaṇhuš*      *vīspā*      (*dātā*)  
INS;SG      GEN;SG + cā      GEN;SG      ADJ;ACC;PL      (3;DU;AOR;INJ;MED)  
By Thy thought, all (the manifestations of) good thought      (are given)
- spəntaxiiācā* ...      *nərəš*      *šiiəθanā*  
GEN;SG + cā      GEN;SG      ACC;PL  
As well as spirit's and      man's      actions

## Appendix II Phrase Distribution Features

Table 4

	Distribution				Distraction		Grammatical nature of compound constituents				
	Each	First	Middle	Last	Dis- tracted	Not Dis- tracted	Verb	Noun	Onoma	Adj.	Pron.
1		+			+			+			
2		+			+		+				
3	+				+				+		
4	+					+		+			
5	+					+		+			
6	+					+		+			+
7	+					+		+			
8	+					+		+	+		
9	+				+			+			
10	+					+		+			
11	+				+			+			
12	+					+		+			
13	+					+		+			



	Distribution				Distraction		Grammatical nature of compound constituents				
	Each	First	Middle	Last	Dis- tracted	Not Dis- tracted	Verb	Noun	Onoma	Adj.	Pron.
14	+					+		+			
15	+					+		+			
16	+					+	+				
17	+					+		+			
18	+				+			+			
19	+					+		+			
20	+				+			+			
21				+		+		+			+
22				+	+				+		+
23				+	+				+		
24				+		+		+			
25				+		+		+			
26				+		+				+	
27				+	+		+				
28				+		+		+			
29				+		+	+				
30				+		+		+			
31				+	+				+		
32				+		+		+	+		
33				+		+			+		
34				+	+			+			
35				+		+		+			
36			+	+		+			+		
37			+	+	+				+	+	
38			+	+		+					+
39	+				+				+		
40		+		+	+			+			
41		+	+			+		+			
42				+		+			+		

	Distribution				Distraction		Grammatical nature of compound constituents				
	Each	First	Middle	Last	Dis-tracted	Not Dis-tracted	Verb	Noun	Onoma	Adj.	Pron.
43			+		+				+		
44				+		+		+			
45				+	+			+			
46			+		+					+	
47				+	+			+			
48		+	+			+		+			+
49			+			+			+	+	
50		+				+		+			
51	+				+				+		
52		+	+		+			+	+		
53		+			+			+	+		

### References

- Bader, F. (1973): Lat. *nempe*, *porceo* et les fonctions des particules pronominales. *Bulletin de la Société de Linguistique de Paris* Vol. 68, No. 1, pp. 27–75.
- Bednarczuk, L. (1971): *Indo-European Parataxis*. Kraków, Wydawnictwo Naukowe.
- Beekes, R. S. P. (1988): *A Grammar of Gatha-Avestan*. Leiden, Brill.
- Croft, W. (1990): *Typology and Universals*. Cambridge, Cambridge University Press.
- Delbrück, B. (1878): *Syntaktische Forschungen v. III*. Halle, Buchhandlung des Waisenhauses.
- Dik, H. (2007): *Word Order in Greek Tragic Dialogue*. Oxford, Oxford University Press.
- Dover, K. J. (1960): *Greek Word Order*. Cambridge, Cambridge University Press.
- Drellishak, S. (2005): *Coordination and Processing*. Washington, UW Working Papers in Linguistics.
- Dressler, W. (1971): Über die Rekonstruktion der indogermanischen Syntax. *Zeitschrift für vergleichende Sprachforschung* Vol. 85, pp. 5–17.
- Dunkel, G. (1982): The Original Syntax of Conjunctive *\*-k<sup>w</sup>e*. *Die Sprache* Vol. 28, pp. 129–143.
- Eichner, H. (1972): Uridg. *kwe* „wenn“ im Hethitischen. *Münchener Studien zur Sprachwissenschaft* Vol. 29, pp. 27–46.
- Garrett, A. (1996): Wackernagel's Law and Unaccusativity in Hittite. In: Halpern, A. – Zwicky, A. (eds): *Approaching Second: Second Position Clitics and Related Phenomena*, pp. 85–133.
- Givón, T. (1984): *Syntax: an Introduction*. Amsterdam–Philadelphia, Benjamins.
- Frazier, L. – Clifton, C. (2006): Ellipsis and Discourse Coherence. *Linguistics and Philosophy* Vol. 29, pp. 315–346.
- Grace, F. G. (1971): The Order of Constituents in Indo-European. Austin, University of Texas at Austin (Ph.D. Thesis).
- Hale, M. (1988): Old Persian Word Order. *Indo-Iranian Journal* Vol. 31, pp. 27–40.

- Haspelmath, M. (2004): *Coordinating Constructions*. Amsterdam–Philadelphia, Benjamins.
- Haspelmath, M. (2006): Against Markedness. *Journal of Linguistics* Vol. 42, pp. 25–70.
- Hock, H. H. (1996): Who’s on First? Toward a Prosodic Account of P2 clitics. In: Halpern, A. – Zwicky, A. (eds): *Approaching Second: Second Position Clitics and Related Phenomena*, pp. 199–270.
- Hoffmann, K. (1989): Avestan Language. In: *Encyclopædia Iranica* Vol. 3, Fasc. 1. London–New York, Routledge.
- Humbach, H. (1991): *The Gāthās of Zarathushtra*. Heidelberg, J. H. Moulton.
- Janse, M. (1992): The Prosodic Basis of Wackernagel’s Law. *Actes du XV<sup>e</sup> Congrès international des linguistes*. Québec, Presses de l’Université Laval, Vol. 4, pp. 19–22.
- Kehler, A. (2000): Coherence and the Resolution of Ellipsis. *Linguistics and Philosophy* Vol 23, pp. 533–575.
- Kellens, J. (1974): *Les noms-racines de l’Avesta*. Wiesbaden, Reichert.
- Kellens, J. (1984): *Le Verbe avestique*. Wiesbaden, Reichert.
- Kellens, J. (1995): *Liste du verbe avestique*. Wiesbaden, Reichert.
- Kellens, J. – Pirart, E. (1988–1991): *Les textes vieil-avestiques*. Vol. 3. Wiesbaden, Reichert.
- Klein, J. S. (1985): *Towards a Discourse Grammar of the Rigveda*. Heidelberg, Carl Winter Universitätsverlag.
- Klein, J. S. (1988): Coordinate Conjunction in Old Persian. *JAOS* Vol. 108, No. 3, pp. 387–417.
- Klein, J. S. (1992): Some Indo-European Systems of Conjunction: Rigveda, Old Persian, Homer. *Harvard Studies in Classical Philology* Vol. 94, pp. 1–51.
- Lambrecht, K. (1994): *Information Structure and Sentence Form: Topic, Focus, and the Mental Representations of Discourse Referents*. Cambridge, Cambridge University Press.
- Langendoen, D. T. (2008): Coordinate Grammar. *Language* Vol. 88, pp. 691–709.
- Luraghi, S. (1990): *Old Hittite Sentence Structure*. London–New York, Routledge.
- Luraghi, S. (1998): The Grammaticalization of the Left Sentence Boundary in Hittite. In: Giacalone Ramat, A. – Hopper, P. J. (eds): *The Limits of Grammaticalization*. Amsterdam–Philadelphia, Benjamins, pp. 189–210.
- Müller, M. (1887): *The Zend-Avesta*. Oxford, Clarendon Press.
- Pedersen, H. (1907): Neues und Nachtragliches. *Zeitschrift für vergleichende Sprachforschung* Vol. 20, pp. 129–217.
- Pirart, E. (1997): Subordinadas avésticas desconocidas. In: *Berthold Delbrück y la sintaxis indoeuropea hoy*. Madrid–Wiesbaden, Sardschweladze, pp. 501–526.
- Reichelt, H. (1978): *Awestisches Elementarbuch*. Heidelberg, Otto Harrassowitz.
- Schmitt, R. (1989): *Compendium Linguarum Iranicarum*. Wiesbaden, Reichert.
- Schwyzler, E. (1927): Miscellen. *Rheinisches Museum für Philologie* Vol. 76, pp. 433–439.
- Skjærvø, P. O. (2006): *Introduction to Old Avestan*. Online published (<http://www.fas.harvard.edu/~iranian/OldAvestan/index.html>).
- Taylor, A. (1990): *Clitics and Configurationality in Ancient Greek*. Philadelphia, University of Pennsylvania (Ph.D thesis).
- te Velde, J. (2000): On the Structure of Coordination. In: Schwabe, K. – Zhang, N. (eds): *Ellipsis in Conjunction*. Tübingen, Niemeyer, pp. 51–78.
- Tremblay, X. (2006): Le pseudo-gathique: Notes de lecture avestique. In: *Proceedings of the 5th Conference of the Societas Iranologica Europea*. Milan, Mimesis, Vol. 1, pp. 233–282.
- Wackernagel, J. (1892): Über ein Gesetz der indo-germanischen Wortstellung. *Indogermanische Forschungen* Vol. 1, pp. 333–436.
- Wälchli, B. (2005): *Co-Compounds and Natural Coordination*. Oxford, Oxford University Press.

- Watkins, C. (1964): Preliminaries to the Reconstruction of Indo-European Sentence Structure. In: *Proceedings of the IX International Congress of Linguists*. The Hague, Mouton, pp. 1035–1045.
- Watkins, C. (1976): Towards Proto-Indo-European Syntax: Problems and Pseudoproblems. In: *Diachronic Syntax*. Chicago, Chicago Linguistic Society, pp. 305–326.
- West, M. L. (2011): *Old Avestan Syntax and Stylistics*. Berlin, De Gruyter.
- Windfuhr, G. (2009): *The Iranian Languages*. London–New York, Routledge.