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# Stressed and unstressed particles in Old Indic

The compatibility of Old Indic *vái* and *ha* leads to a revision of previous particle classifications, including the status of particles as second-position phenomena in Old Indic. For this purpose, the meaning of those Old Indic particles that appear stressed and unstressed is described, both in semantic and pragmatic aspects. On the one hand, there are focus sensitive operators, on the other hand discourse particles. While the focus particles also occur intra-sententially and may be moved together with their focus exponent to the left and therefore are no Wackernagel-particles, the discourse-relational particle *ha* is a true second-position particle. In combination, *ha* and *vái* have a fixed order representing scope relations between discourse structure and illocutionary force.

## 1 Research issue

Old Indic particles serve different purposes, nevertheless, they may be classed under two general heads: modality and connection (Speyer 1896: 310). When modal, they are expressive of emphasis, negation, interrogation, exclamation and the like, when connective they connect either whole sentences or parts of them. Another distinction is the separation into particles that can begin the sentence like *átha* ‘then’, *ápi* ‘also’, *utá* ‘and’ and particles that cannot. Three types of postpositive particles or enclitics are to be distinguished. While sentence-connective enclitics like *ca* ‘and’ or *vā* ‘or’ are attached to the first word of the constituent or clause being conjoined or disjoined, whether that is a single word or clause, word-level enclitics like the emphasizing particles *cid*, *íd* have scope over a single word or constituent, and are placed directly behind this word or constituent. The so-called sentential enclitics like affirmative *khálu*, *kíla* ‘indeed’, asseverative *su*, *sú* ‘well’ (referring to the verb) show the most word order variation. By referring to the statement of the whole sentence in a somehow expressive way some are placed after the first stressed word in a sentence

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and any emphatic or sentence-connective clitic associated with that word, others behind a particular syntactic position in the clause (Fortson 2004). Furthermore, one part of the postpositive particles is stressed, one part is not. In contrast to German where one and the same modal particle may be stressed or unstressed by displaying different functions, in Old Indic the prosodic structure is firmly attached to the particle, it is either stressed or unstressed.<sup>1</sup> But as it appears in German, Old Indic likes putting together and even combining two or more particles.<sup>2</sup> The particles at main issue in the following are the particles *ha* and *vái*. Their meaning is given as ‘indeed’ and ‘just’ respectively. Though further clarifications are necessary, the distribution of *ha vái* suggests that these particles are situated in two different syntactic positions in the structure of the left periphery.<sup>3</sup>

It was Wackernagel’s Law (Wackernagel 1891/1892) which has made significant progress in exploring particles in Old Indic and beyond: weakly stressed and unstressed words, among others particles, cliticise onto stressed ones and hold the second sentence position, whereby the grammatical class of the preceding (stressed) element of the sentence is not fixed. However, in the second sentence position besides unstressed particles also the just mentioned stressed particles appear in Old Indo-European languages.<sup>4</sup> This means, that in Old Indic both kinds of particles obviously seem to have consistent functional areas, and unstressed particles and stressed particles can be focus particles or discourse particles. In the following we stay with Old Indic, because this language is the first among the oldest Indo-European languages which have indications of word stress. In Old Indic as well as in German, focus particles mark the part of the sentence that contains the most important information while discourse particles can structure a discourse according to foreground and background information.<sup>5</sup> This was the reason to separate the corresponding particles according foregrounding

**1** This is also true to Icelandic *hvað*-exclamatives: *hvað* following an integrated particle is pronounced [kvað], which is the unstressed counterpart of [\*khva:ð] (Jónsson 2010, 2017).

**2** In German a discourse particle can also occur in the left periphery together with a focus particle (FP) and a DP:

(i) *Wohl nur FRITZ hat er getroffen.*  
 PRT only Fritz has he met  
 ‘Fritz was probably the only one he met.’  
 (Egg and Mursell 2017: Ex. [8]).

**3** For a similar distribution of the left-peripheral sentence particles *inu* and *ia*, cf. Petrova (2017).

**4** A recent work in which previous research approaches are summarized is Conglio (2009). Here, the conditions for modal particles in subordinate clauses are identified. For stressed modal particles in German, cf. Thurmair (1989: 104), Conglio (2006, 2011: 9).

**5** For discourse particles as “main clause phenomena”, cf. Conglio (2011: 130–132), Conglio and Zegrean (2012).

and backgrounding in Lühr (2009, 2010). It was assumed that by foregrounding particles the hearer's attention is drawn to a certain fact. Compared with this, by using backgrounding particles the speaker makes clear that he moves certain text elements or knowledge requirements to the background. In the following the term "foregrounding particle" is used synonymously with "discourse-relational particle" for the particle is fulfilling discourse-organizational functions by relating items of discourse to other items of discourse (Diewald 2006: 406). As it will be shown, the discourse-relational particle *ha* has scope over the backgrounding particle *vái*. And it is exactly this that is indicated by stress in Old Indic: The discourse-relational particle is unstressed and the backgrounding particle is stressed. But in Old Indic, also combinations of foregrounding and backgrounding particles appear in the Wackernagel position. To explain the pragmatic function of such combinations, it first will be shown that the usages of the various types of particles in the Wackernagel domain can clearly be separated from each other. Therefore, these particles have to be initially considered independently. The first section is about unstressed focus particles, the second about stressed focus particles, the third about the unstressed discourse-relational particle *ha*, the fourth about stressed backgrounding particles and the last about the combination of a discourse-relational particle and a backgrounding particle. The data come from our DFG-projects "Informationsstruktur in älteren indogermanischen Sprachen" and "Informationsstruktur in komplexen Sätzen – synchron und diachron". They are available in the ANNIS database (Potsdam) (<http://annis-tools.org>) (Zeldes et al. 2009). However, to determine the discourse functions of the particles *ha* and *vái* and their combination *ha vái* especially records of one coherent text, the Cyavana legend, are used. As this legend consists of speeches and responses, real-life usage can be analyzed, as it is provided by Corpus Linguistics. There is no need to say that only by a comprehensive sampling of empirical data language hypotheses being developed for older language stages can be tested.

## 2 Focus particles

As mentioned (Section 1), in Old Indic focus particles have two prosodic representations, they appear unstressed and stressed.

### 2.1 Unstressed focus particles

Unstressed focus particles in the Wackernagel position in Old Indic will not be dealt with any further in the present investigation. According Mark Hale

(1987a, 1987b) (cf. also Hock 1996) such particles move into the second position by cliticizing onto a constituent that was topicalized to the first position.<sup>6</sup> For example, in (1) *ásmānaṃ cid* as a whole could also have been placed in other positions, for example in the right edge of the sentence behind *vácobhiḥ*.

- (1) RV 4,16,6<sup>7,8</sup>  
*ásmānaṃ cid yé bibhidúr*  
 rock(M):ACC.SG even who:NOM.M.PL cleft:PRF.IND.ACT3PL  
*vácobhiḥ*  
 word(N):INSTR.PL  
 ‘who with their songs cleft even the mountain open’<sup>9</sup>

Cf. with generalizing *cid* in the phrase *anyátaś cid* ‘even of everything else’ in the middle of the sentence:

- (2) RV 1,4,5  
*utá bruvantu no nído nír*  
 PFX say:PRS.IMP.ACT3PL OUR:GEN criticiser(M):NOM.PL PFX  
*anyátaś cid ārata*  
 other:ABL.SG even deprive oneself:AOR.IND.ACT.2PL  
 ‘Our criticsers may say: “You deprived yourself even of everything else.”’

The accentless and thus unstressed focus particle *cid* ‘even’<sup>10</sup> is a scalar focus particle assigning to its domain an extreme position on a scale formed by its

<sup>6</sup> It is generally assumed that focus particles are focus sensitive operators binding parts of the utterance as their focus exponent (for association with focus, cf. Rooth [1985], and later for focus particles in German, cf. König [1991]).

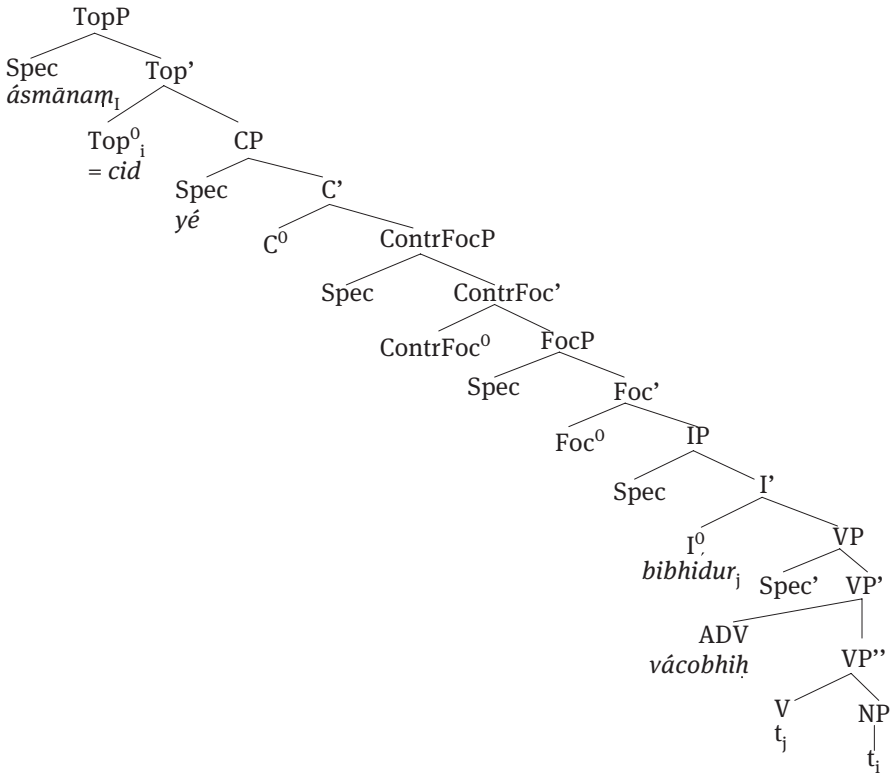
<sup>7</sup> The glossed sentence shows an analyzed sandhi, that is, with words separated free of contextual phonetic adaptation. Examples of the Ṛgveda already discussed elsewhere are not glossed (Lühr 2004, 2009, 2010).

<sup>8</sup> The following abbreviations are used in glossing examples: ABL = ablative, ACC = accusative, ACT = active, ADV = adverb, AOR = aorist, DU = dual, F = feminine, GEN = genitive, IMP = imperative, IND = indicative, INSTR = instrumental, M = masculine, MED = medium, N = neuter, NOM = nominative, PERIPHRAST = periphrastic, PRF = perfect, PFX = prefix, PL = plural, PRS = present, PRT = particle; QUOT = quotative, SG = singular, SBJV = subjunctive, VOC = vocative, 1/2/3 = 1st/2nd/3rd person.

<sup>9</sup> A different notion is Bayer’s (2001) “emphatic topicalization”. It is a type of movement to the specifier of a dependent CP in Bavarian distinct from *wh*-movement. Once “emphatic topicalization” has applied to a CP, this CP itself is required to undergo topicalization. This movement induces a feature that is only interpretable in the domain of illocutionary force in the root clause.

<sup>10</sup> Krisch (1990: 65) rightly points out that such particles are no Wackernagel enclitics for their position is depending on their host.

contextually relevant alternatives. These alternatives are contextually given or at least derivable.<sup>11</sup> As is known, in Old Indo-European languages the first position of a sentence is a landing site for topicalized or contrastively focused material (Hale 1996: 169), namely, on the left of the landing site for *wh*-movement, hence: Spec, TopP.<sup>12</sup> Thus, (1) has the structure seen in (3), with *cid* in Top<sup>0</sup> following the first phonological word.<sup>13</sup>



<sup>11</sup> Steube and Sudhoff (2007), Sudhoff (2010: 34) with further literature.

<sup>12</sup> The syntactic movement to the left into the initial sentence position (topicalization) is not identical with the realization of aboutness topics as information structure categories.

<sup>13</sup> This entity is no syntactic constituent, i.e. a word or a group of words that functions as a single unit within a hierarchical structure, rather, it is a real prosodic entity.

## 2.2 Stressed focus particles

Also the stressed particle *íd* ‘especially’ may appear behind the first phonological word of a sentence:

- (4) RV 8,6,10  
*ahám íd dhí pitúṣ pári medhám*  
 I:NOM.SG especially for father(M):GEN.SG PFX wisdom(F):ACC.SG  
*ṛtásya jagrábha*  
 truth(N):GEN.SG have received:PRF.IND.ACT1SG  
 ‘For I, especially, have received knowledge of the truth from my father.’<sup>14</sup>

However, in Old Indic the sequence of a focalized word + *íd* is also not restricted to sentence-initial position:

- (5) RV 10,91,3  
*vásur vásūnām kṣayasi*  
 God:NOM.M.SG good things(N):GEN.PL reign:PRS.IND.ACT2SG  
*tvám éka íd / dyāvā*  
 you:NOM.SG alone:NOM.M.SG completely heavens(M):NOM.PL  
*ca yāni pṛthivī ca púṣyataḥ*  
 and which:ACC.N.PL earth(F):NOM.SG and produce:PRS.IND.ACT3DU  
 ‘As God you completely alone reign on all good things, that heavens and earth produce.’

Also other stressed focus particles behave just as *íd*, for example *aigá* ‘just, alone’; hence, they occur in the Wackernagel position or within the sentence, namely always following the constituent which they emphasize:

- (6) RV 10,4,4  
*mūrā amūra ná vayám*  
 foolish:NOM.M.PL wise:VOC.M.SG not we:NOM.PL  
*cikitvo mahitvám agne*  
 sagacious:VOC.M.SG grandeur(N):ACC.SG Agni:VOC.SG

<sup>14</sup> *íd* is not a “free focus” in the sense of Féry (2012), in sentences as:

- (i) [MARIA]<sub>TOP</sub> hat [AUCH]<sub>FOC</sub> Kuchen gegessen.  
 Maria has also cake eaten  
 ‘Maria ate cake, too.’

*íd* does not appear in distance position, but only in contact position. Apart from that, the stressed element *auch* in the German example is not a focus, but *Maria* is in the scope domain of *auch* so that *Maria* is the focus.

*tuvám aṅgá vitse*

you:NOM.SG alone understand:PRF.IND.MED2SG

‘We foolish, o wise and sagacious Agni, do not (understand) your grandeur.  
You alone understand it.’

(7) RV 1,84,8

*kadā́ mártam arādhásam padā́*

when mortal:ACC.M.SG avaricious:ACC.M.SG foot(M):INSTR.SG

*kṣúmpam sphurat / iva kadā́ naḥ*

toadstool(M):ACC.SG kick away:PRS.IND.ACT3SG like when of us:GEN.PL

*śúśravad gíra índra aṅgá*

will hear:PRS.SBJV.ACT3SG songs(F):ACC.PL Indra:NOM.SG alone

‘When will he kick away with the foot the avaricious mortal like a toadstool,  
when will he hear our songs, Indra alone?’

(Kozianka 2000: 224; for further details cf. Lühr 2010)

In German postposed stressed *auch* ‘also’ is comparable. Following the focus *auch* itself is stressed: cf. the additive focus particle *auch* in: *auch PÉter* vs. *Peter AUCH*. In accordance with the phenomenon association with focus *auch* takes the preceding element in its scope domain.

### 3 Backgrounding particles

Moving on to the backgrounding particles in the Wackernagel position, further stressed particles in this position, we choose the particles *hí* and *vái* from these particles, because they have a similar function. They resemble German modal particles<sup>15</sup> for expressing a speaker’s attitude toward an utterance. The particle *hí* is often found in motivating requests. Here, the *hí*-sentence acts as a subsidiary speech act (Lühr 2004). The request is the more reasonable the more convincing the motivation. Such a motivation then includes frequently the modal particle *ja* in the German translation:

(8) RV 5,77,1

*prātaryāvāṇā prathamá yajadhvam*

at early morning-coming:ACC.M.DU first worship:PRS.IMP.MED2PL

<sup>15</sup> Modal particles are partly treated as weak adverbs (Coniglio 2011), partly as functional heads (Struckmeier 2009, 2014; Bayer and Obenauer 2011), or more specified as pre-VP functional heads (Bayer 2012), cf. further Jónsson (2017).

[...]

*prātār hí yajñām aśvínā*  
 early after all sacrifice(M):ACC.SG Aśvins(M):NOM.DU  
*dadhāte*

receive:PRS.IND.MED3DU

‘First worship those who come at early morning. In the morning the Aśvins receive their sacrifice.’

(German: *Am Morgen empfangen ja die Aśvins ihr Opfer.*)

(cf. Geldner 1951; Hettrich 1988: 185–186)

German *ja* marks the proposition as uncontroversial (Jacobs 1991). The proposition must not to be immediately pre-mentioned. Rather, *ja* triggers the presupposition, that the proposition represents a content which is generally accepted, this is customs, beliefs, conventions, obviousnesses; cf. the discussion on *vái*. In (11) below, something which has just been recognized is communicated; hence it is not contextually given information,<sup>16</sup> but information which is evident to all discourse participants. An appropriate translation for a particle which makes background information explicit as part of the common ground<sup>17</sup> is *bekanntlich* ‘obviously’ or ‘as is known’. But as in English many means functioning as lexical markers of common grounds exist (Fischer 2007), in the following English translations of the whole sentences the equivalents of the German modal particles sometimes remain untranslated.

Also in motivating statements *hí* is documented in the sense of German *ja*:

(9) RV 7,21,6

*ná te vivyañ mahimānaṃ*  
 not of you:GEN.SG comprehend:PRS.IND.ACT3SG greatness(M):ACC.SG  
*rājāṃsi / svénā hí vṛtrāṃ*  
 region(N):NOM.PL own:INSTR.N.SG obviously Vṛtra(M):ACC.SG  
*śávasā jaghántha*  
 power(N):INSTR.SG slay:PRF.IND.ACT2SG

‘the regions do not comprehend your [of Indra] greatness. With your own power you slew Vṛtra.’

(German: *Mit deiner eigenen Kraft hast du ja den Vṛtra erschlagen.*)

As explained in Lühr (2009), by employing the particle *hí*, the speaker assumes that the fact set out is present to the hearer. But he or she mentions it explicitly to be sure that it is really known to him (Thurmair 1989: 105). However, marking of a

<sup>16</sup> Backgrounding particles do not need to refer only to propositions that are pre-mentioned.

<sup>17</sup> Stalnaker (2002), Kratzer and Matthewson (2009), Egg and Mursell (2017).



proposition as KNOWN may also have the purpose, “die entsprechende Information beim Hörer [...] im Hintergrund zu belassen; durch *ja* wird dann dem Hörer bedeutet, dem dargestellten Sachverhalt – eben weil er bekannt ist – nicht die volle Aufmerksamkeit zu widmen“ [to leave the relevant information in the background; by using *ja* it is then indicated to the hearer that his attention should not be fully focused on the fact presented, precisely because it is known] (Thurmaier 1989: 106; translation R.L.).

However, while *hī* does not always appear in the second sentence position, Vedic *vái* behaves differently: According to Delbrück (1888: 22) *vái* belongs to those particles, „welche der Stelle hinter dem ersten Worte des Satzes zustreben und damit die Fähigkeit erlangen, den Satzgedanken hervorzuheben“ [which tend onto the place behind the first word of a sentence acquiring the ability to gravitate toward the idea of the sentence; translation R.L.]. For that, we regard the evidence of the Sanskrit legend around Cyavana in the Śatapatha-Brahmaṇa (ŚB IV 1,5) talking about the rejuvenation of an old man. In this legend *vái* has functions which can be assigned to a superior feature KNOWN as in the case of *hī*. The first sentence of the Cyavana legend is:

(10) Cyavana, ŚB IV 1,5,1

<i>yátra</i>	<i>vái</i>	<i>bhṛ̥gavaḥ</i>	<i>vā</i>	<i>ángirasaḥ</i>	<i>vā</i>
when	as is known	Bhṛ̥gu(M):NOM.PL	or	Angiras(M):NOM.PL	or
<i>svargám</i>	<i>lokám</i>	<i>samáśnuvata</i>			
heaven(M):ACC.SG	world(M):ACC.SG	reach:PRF.IND.ACT3PL			
<i>tát</i>	<i>cyávanaḥ</i>	[...]	<i>jṛ̥mīḥ</i>		
then	Cyavana(M):NOM.SG		decrepit:NOM.M.SG		
<i>kṛ̥tyáruṣaḥ</i>	<i>jahe</i>				
in the shape of a ghost:NOM.M.SG	stay behind:PRF.IND.ACT3SG				

‘when, as is known, the Bhṛ̥gus and the Angiras reached the heaven, the world, then Cyavana stayed behind decrepit looking like a ghost ...’

The use of *vái* in the beginning of a narration is typical for this type of prose (Speyer 1896: 70). The temporal clause functions as a frame setting adverbial. The story of the Bhṛ̥ghus’ and Angiras’ trip to the world is assumed to be known. Thus, *vái* is a speech act modifier, the host sentence of which is already part of the common ground. This sentence refers to background information.

Another usage appears in different copular structures.<sup>18</sup> (11) is a specificational sentence (Mikkelsen 2005: 122). It is preceded by the following: Śaryāta Mānava belonging to the same clan as Cyavana happened to be in the area, when

<sup>18</sup> For the distinction between the different kinds of copular clauses cf. Mikkelsen (2005), Geist (2006, 2007).

boys pelted the old man with clods. At this moment he recognized his relative and exclaims:

(11) Cyavana, ŚB IV 1,5,5

*sá*                    *vai*                    *cyávanaḥ*                    *íti*  
 he:NOM.M.SG    obviously    Cyavana(M):NOM.SG    QUOT  
 ‘This is Cyavana.’  
 (German: *Das ist ja der Cyavana.*)

The exclamation *Das ist ja der Cyavana* ‘This is Cyavana’ is uncontroversial, but is made salient nevertheless because it is significant to what is actually happening, here in the at-issue dimension of the utterance (cf. for this use of German *ja*, Viesel [2017]).

Not only in exclamatory, but also in affirmative clauses this use is often documented; cf. for an example in an unaccented text, that is, without accent diacritics on stressed vowels. An equative clause is (12):

(12) BAU III.1.25<sup>19</sup>

*vāk*                    *vai*                    *yajñasya*                    *hotā*  
 speech(F):NOM.SG    obviously    sacrifice(M):GEN.SG    Hotar(M):NOM.SG  
 ‘The speech is known to be the Hotar of the sacrifice’  
 (German: *Die Rede ist ja der Hotar des Opfers*)

Again in a predicative structure with identifying reference in the following the Aśvins say of themselves:

(13) Cyavana, ŚB IV 1,5,15

*múkhyau*                    *vai*                    *āvám*                    *yajñásya*  
 supervisor(M):NOM.DU    obviously    we:NOM.DU    sacrifice(M):GEN.SG  
*svaḥ*                    *yaú*                    *adhvaryú*  
 be:PRS.IND.ACT1DU    who:NOM.M.DU    Adhvaryu(M):NOM.DU  
 ‘We as the Adhvaryus are the two supervisors of the sacrifice.’  
 (German: *Wir, als die Adhvaryus, sind ja die beiden Vorsteher des Opfers.*)

Adjectives are to be found in predicational clauses: In the Cyavana legend, pretty Sukanyā – the name means ‘pretty girl’ – decidedly rejects an unambiguous proposal of the two Aśvins. She should leave her old husband Cyavana and come with them. She says:

(14) Cyavana, ŚB IV 1,5,10f.

*ná*    *vai*                    *sūsarvau*                    *iva*                    *sthaḥ*  
 not    obviously    complete:NOM.M.DU    as it were    be:PRS.IND.ACT2DU

<sup>19</sup> The *Bṛhadāraṇyakopaniṣat* is one of the oldest Upanishads.

*ná súsamṛddhau iva*  
 not perfect:NOM.M.DU as it were  
 ‘You both are obviously somehow not complete, somehow not perfect.’  
 (German: *Ihr beide seid ja irgendwie nicht ganz vollständig, irgendwie nicht ganz vollkommen.*)

Even if the Aśvins do not know what is meant by these words, Sukanyā knows. Speaker knowledge is also expressed when the Aśvins incite the gods to invite them to the sacrifice. The gods have refused this, because the Aśvins acted as doctors among men for too long. The Aśvins then speak the following sentence being incomprehensible for the gods:

- (15) Cyavana, ŚB IV 1,5,14  
*vísīrṣṇā vai yajñéna*  
 headless:INSTR.M.SG obviously sacrifice(M):INSTR.SG  
*yajadhve íti*  
 sacrifice:PRS.IND.MED2PL QUOT  
 ‘You make a headless sacrifice.’  
 (German: *Ihr opfert ja ein kopfloses Opfer.*)

It follows, that the feature KNOWN of *vái* in (10) to (15) has different connotations: In (10) the speakers indicate that the proposition in their opinion is also known to the hearer. On the contrary, (11) is an emphatic statement. The speaker expresses his surprise that the fact he is stating ‘This is Cyavana’ (German: *Das ist ja Cyavana*) is correct. The situation providing the reason for the statement of the speaker is also accessible to the hearers (Thurmair 1989: 107). This also applies for the affirmative clauses (12) and (13). Opposite to this, in (14) and (15) the speaker assumes that he or she has access to knowledge of which the hearer is not aware. For the Aśvins as well as the gods put an understanding question in both cases: ‘Why are we not complete, not perfect?’ respectively ‘Why with a headless [sacrifice]?’ Therefore, (14) and (15) show that besides the expression of background information the particle *vái* has a further relevant function determining the course of conversation. Affirmative clauses with *vái* can initiate questions of clarification, these are special speech acts.

Whereas in a declarative sentence the speaker knows the truth of the proposition, in an interrogative sentence it is the addressee who can evaluate the truth of the proposition. The speech act relation simply mediates between the discourse participants of speaker and hearer, and the seat of knowledge invoked in the sentence. Therefore, these two speech acts can be represented as differing in their assignment of the seat of knowledge to the participants in the discourse (represented by underlining the appropriate person) (cf. Tenny and Speas 2004):

- (16) declarative: [Speaker, Hearer]  
 interrogative: [Speaker, Hearer]

As questions are formed to ask for missing information which is known to the addressee also in these cases the feature KNOWN comes into play and all ways of use of the backgrounding particle *vái* can be subsumed under this feature.

## 4 Discourse-relational particle

Passing now to a discourse-relational particles that is unstressed we choose the particle *ha*, for it appears in the combination *ha vái* (Section 5). With *ha* a change of the discourse situation is suggested.<sup>20</sup> Eleven of eighteen sentences in the Cyavana legend contain a verb of saying, whereby the change of perspective concerns persons. The sentences are declarative sentences ensuring the extension of the narrative. The sentence type (17) with a subject in the first position is often documented, cf. with an anaphoric pronoun:

- (17) Cyavana, ŚB IV 1,5,5 (cf. ŚB IV 1,5,7; 9; 10; 11 with 3SG; ŚB IV 1,5,5; 15 with 3PL; ŚB IV 1,5,9; 11; 12; 13; 14 with 3DU; ŚB IV 1,5,9 with an anaphoric pronoun in the accusative)

*sá*                      *ha*    *uvāca*  
 he:NOM.M.SG    but    say:PRF.IND.ACT3SG  
 ‘But he said:’

Similar is (18), which is preceded by a speech of Sukanyā. The two Aśvins establish a speaker change:

- (18) Cyavana, ŚB IV 1,5,10

*ṭám*                      *ha*    *etád*                      *evá*                      *ūcatuḥ*  
 he:ACC.F.SG    but    that:ACC.N.SG    exactly    say:PRF.IND.ACT3DU  
 ‘But they said exactly that to her.’

Also in the following passage a change of perspective is designated. Sukanyā had previously refused the proposal of the Aśvins by saying: ‘I will not desert, while he lives, the man to whom my father gave me.’ Her words will now be followed by a sentence with a cognitive verb:

- (19) Cyavana, ŚB IV 1,5,9

*tád*                      *ha*    *ayám*                      *ṛṣiḥ*                      *ájajñau*  
 this:ACC.N.SG    but    this:NOM.M.SG    Ṛṣi(M):NOM.SG    notice:PRF.IND.ACT3SG  
 ‘But this Ṛṣi noticed that.’

<sup>20</sup> Cf. Insler (1991: 60): In Old Indic, particles mark the beginning of a new thought. For similar cases with verb first position on Old High German, cf. Hinterhölzl, Petrova, and Solf (2006: 153–155), Petrova and Solf (2008: 332), Axel (2007: 153–155).



The question is whether the discourse functions identified for the particles *ha* and *vái* when taken alone fit together here. With *ha* again a change of perspective in personnel matters is notified. Before, a talk of the Bhṛḡus and the Angiras and now of Śaryāta, the descendant of Manu, was represented. By contrast, *vái* has the semantic feature KNOWN. Consequently, it is presumed that the hearer not only has knowledge of the Bhṛḡus' and Angiras' trip to the world, but also, as it is said in the second clause (22), that he or she knows, that Śaryāta was in that region present, where the Bhṛḡus and the Angiras arrived.

The constellation of these actors is not otherwise documented in the Indic literature. However, it is reasonable to suppose that it was known. In any case, the connection between the Bhṛḡus and Angiras is old. In the Ṛgveda book 8 the progenitor of the Bhṛḡus, Bhṛḡu, is mentioned together with the progenitor Angiras. Angiras is one of the seven wise men, several hymns have been dedicated to him.

(23) RV 8,43,13 For Agni

*utā tvā bhṛḡuvác chuce manuṣvād agna āhuta |*  
*aṅgirasvād dhavāmahe*

'And we invoke you like Bhṛḡu, o pure, like Manu, Aṅgiras, o Agni, o sprinkled with ghee'

(cf. Geldner 1951)

In another place in the Ṛgveda also Śaryāta appears, in a hymn to Indra:

(24) RV 1,51,12 For Indra

*ā smā rátham vṛṣapāṅeṣu tiṣṭhasi śāryātāsya prābhṛtā yéṣu mándase*

'You mount on the car amid the bull draughts: (the Soma draughts of) Śaryāta are offered in which you intoxicate yourself'

(cf. Geldner 1951)

The reason why the particles *ha* 'but' and *vái* 'as is known' (German: *ja, bekanntlich*) are combinable is due to the fact that the feature UNEXPECTED of *ha* 'but' refers to the situation expressed in the sentence in which *vái* occurs. By this feature the facts achieve a different perspective. Compared to this, in (22) *vái* points to knowledge levels being equally established in the consciousness of speaker and addressee.

The particle combination *ha vái* is again found in Vedic unaccented texts:

(25) Chand.UP 1.11.20

*sarvāṇi ha vai imāni bhūtāni*  
all:NOM.N.PL but as is known this:NOM.N.PL living being(N): NOM.PL  
*prāṇam eva abhi saṃviśanti*  
vital breath(M): ACC.SG just through enter:PRS.IND.ACT3PL

'But all these living beings just enter through the vital breath (as is known)'

Let us now consider additional records with the combination *ha vai* in Old Indic:

(26) Cyavana, ŚB IV 1,5,8

*aśvīnau*                    **ha vai**                    *idām*    *bhiṣajyāntau*  
 Aśvin(M):NOM.DU    but    as is known    here    acting as doctor(M):NOM.DU  
*ceratuḥ*  
 wander about:PRF.IND.ACT3DU  
 ‘But the two Aśvins ... acting as doctors wandered about here’

While *ha* indicates a change of perspective again, here with regard to person and situation, the exact reference of the backgrounding particle *vai* has to be proved. The sentence contains two predications, the finite verb *ceratuḥ* ‘they wandered about’ and the participle present *bhiṣajyāntau* ‘acting as doctors’. In this context it is important that in the Ṛgveda the Cyavana legend is mentioned and is thus in any case known to the hearers:

(27) RV 1,116,10

*jujurūṣo nāsatyotā vavrīm prāmuñcataṃ drāpīm iva cyāvānāt |*  
*prātīrataṃ jahitāsyāyur dasrād it pātīm akṣṇutaṃ kaññām*  
 ‘And, you Nāsatyas [Aśvins], took away sheath from the aged Cyavāna as if  
 it had been a cloth. You Dasras, extended the life of him who had been cast  
 off and you made him the husband of young women’

Furthermore, in the Indic tradition the Aśvins are presented as divine doctors and helpers healing the sick and helping the poor and distressed in need and danger (Bechert 1984: 43). These are therefore stable and generally known characteristics of the Aśvins, i.e. individual-level predicates. It seems therefore obvious to relate the backgrounding particle *vai* to *bhiṣajyāntau* ‘acting as doctors’. A possible German translation of (26) would be construed with a relative as in (28).

(28) *Die beiden Aśvins aber, die bekanntlich als Ärzte wirken, zogen hier umher.*

Thus, the reference of *vai* is apparent from the context. The particle cannot be attached to the constituent it actually modifies, namely *bhiṣajyāntau* ‘acting as doctors’, because *vai* only appears in the Wackernagel position.

Finally, the following record with the particle connection *ha vai* has to be discussed – for the moment *vai* remains untranslated.

(29) Cyavana, ŚB IV 1,5,4

*śāryātaḥ*                    **ha vai**                    *ikṣāṃ*                    *cakre*  
 Śāryāta(M):NOM.SG    but    ?    think:PERIPHRAST.PRF    make:PRF.MED.IND3SG  
 ‘But Śāryāta ... thought’

The sentence recalls (19), repeated here for convenience as (30), it is also associated with a verb of perception, but without *vái*:

- (30) Cyavana, ŚB IV 1,5,9  
*tád dhāyám<sup>21</sup> ṛṣir ājajñau*  
 ‘But this Ṛṣi noticed that.’

In (19)/(30) as well as in (29) a change of perspective is expressed by *ha* like in several other text passages. However, in respect to (29) not only the preceding context has to be considered, but also the following. In the previous sentence the situation is described resulting from the humiliation of Cyavana – boys pelted the old man with clods. Cyavana took revenge by creating dissent among the clan:

- (31) Cyavana, ŚB IV 1,5,3  
*pitaívá putréṇa yuyudhe bhrátā bhrátrā*  
 ‘Even the father quarreled with the son, the brother with the brother’

However, only the following context provides the explanation for the use of the particle *vái*. Śaryāta is surprised at the dissent between father and son and brother and brother. His thought is rendered as in (32):

- (32) Cyavana, ŚB IV 1,5,4  

<i>yát</i>	<i>kím</i>	<i>ákaram</i>	<i>tásmā</i>
which:ACC.N.SG	what:ACC.N.SG	do:AOR.IND.ACT1SG	this:ABL.N.SG
<i>idám āpadi</i>		<i>íti</i>	
here	get into:AOR.IND.MED1SG	QUOT	

 ‘What did I do that I got into this?’  
 (lit.: ‘Which, what did I do?, therefore I got into here’)

Rendering the meaning of *vái* with ‘obviously’, thus, the whole text passage amounts to (33):

- (33) ‘But Śaryāta obviously thought: “What did I do that I got into this?”’

The function of *vái* is then clear. In his commentary, the narrator tries to guess what Śaryāta may have thought in the described conflict situation. That is to say, *vái* expresses the narrator’s attitude toward the utterance. He or she is convinced that his/her interpretation is correct. Therefore, an epistemic meaning can be attributed to *vái*, given that this would mean that epistemicity qualifies the knowledge the speaker has about the possibility, probability or certainty of the proposition expressed by his or her utterance.

<sup>21</sup> Here, Sandhi is not resolved.



In (34), the meaning of the particle *vái* is different:

(34) RV 8,58,2

<i>ékaḥ</i>	<i>evá</i>	<i>agnír</i>	<i>bahudhā</i>	<i>sámiddha</i>
one:NOM.M.SG	only	fire(M):NOM.SG	many times	kindle:NOM.M.SG
<i>ékaḥ</i>	<i>súryo</i>	<i>víśvam</i>	<i>ánu</i>	<i>prábhūtaḥ</i>
one:NOM.M.SG	sun(M):NOM.SG	all:ACC.N.SG	PFX	penetrate:NOM.M.SG
<i>ékā</i>	<i>evá</i>	<i>úṣāḥ</i>	<i>sárvam</i>	
one:NOM.F.SG	only	dawn(F):NOM.SG	all:ACC.N.SG	
<i>idám</i>	<i>ví</i>	<i>bhāty</i>		
this:ACC.N.SG	PFX	shine on: PRS.IND.ACT3SG		
<i>ékaṃ</i>	<b><i>vái</i></b>	<i>idám</i>	<i>ví</i>	<i>babhūva</i>
one:NOM.N.SG	obviously	this:ACC.N.SG	PFX	emerge:PF.IND.ACT3SG
<i>sárvam</i>				
all: ACC.N.SG				

‘Only one fire is kindled many times, only one sun is all penetrating, dawns as one shine on all this, from this one, unfolds the whole.’

(cf. Geldner 1951)<sup>22</sup>

Compared with (32), the factual circumstances of the *vái*-utterance are related to utterances previously mentioned. They can be discovered from these. Therefore, *vái* displays an evidential meaning (Thurmair 1989: 120) rather than an epistemic one. However, the relationship between evidentiality and epistemicity is a matter of debate. The following distinction is made by de Haan (2005: 379): “Evidentiality asserts the evidence, while epistemic modality evaluates the evidence.” Whatever it may be, there is agreement that evidentiality and epistemicity are concerned with the speaker’s attitude to the truth-value or factual status of the proposition. This is why Palmer (2001: 24) speaks of “propositional modality”.

Looking for parallels for an emphasized affirmative particle behind a discourse-relational particle and hence for clausal scope in nowadays languages, cf. Abraham’s (2017) German example (with MP = modal particle):<sup>23</sup>

(35) <i>Er heißt Philomena,</i>	<i>hat</i>	<b><i>aber doch</i></b> /	<b><i>*doch aber</i></b>	<i>Hosen an.</i>
his name is Ph.,	has	MP1 MP2	MP2 MP1	pants on
(Abraham 2017: Ex. [64])				

<sup>22</sup> According to Speyer (1896: 70), *vái* stresses the most important and most general of four parallel sentences.

<sup>23</sup> For the combination of modal particles in German, cf. Coniglio (2011: 90–92); for German *aber auch*, cf. Thurmair (1989: 251); for affirmative German *doch*, cf. Gärtner (2017); for scope relations of modal particles, cf. Gutzmann (2017). For the order German *ja doch* and *doch ja*, cf. Müller (2017).

And for the combination of *aber* ‘but’ and *ja* ‘obviously’ in New High German, we also find records for that:

- (36) *Magdalena Neuner war immer ein Vorbild für mich, aber die ist ja nicht mehr dabei.*

‘Magdalena Neuner was always a good example for me, but she is no longer there.’

(<http://www.sueddeutsche.de/news/sport/olympia-viel-aufregung-deutsches-olympia-team-verabschiedet-dpa.urn-newsml-dpa-com-20090101-140204-99-01108>)

- (37) „**Aber** er hat **ja** gar nichts an!“ sagte endlich ein kleines Kind.

“‘But he has nothing on at all,” said a little child at least.’

(<http://gutenberg.spiegel.de/buch/hans-christian-andersen-m-1227/114>)

- (38) *Wenn die EZB nun **aber** „**offensichtlich**“ Zinsaufschläge auf Staatsanleihen einzelner Staaten neutralisieren will ...*

‘But if the EZB evidently intends to neutralize the spreads above government bonds of individual states’

(<http://www.openeuropeberlin.de/omt-politisch-bequem-okonomisch-nutzlich-aber-rechtlich-unhaltbar-von-michael-wohlgemuth/>)

- (39) *Es muss noch mehr Computer gegeben haben, die **aber** „**offensichtlich** zuvor entfernt“ wurden. Wusste Edathy also von den Ermittlungen?*

‘There must have been more computers but which were evidently removed before. Hence, did Edathy know about the inquiries?’

(*Tagesspiegel*, 14.2.2014)

As with German *aber ... ja/offensichtlich*, in the Old Indic particle sequence *ha vái* the discourse-relational particle has scope over the backgrounding particle (cf. for German, Diewald [2007]).

Because there is a relation between the syntactic order and the order in which things get interpreted, Dik’s (1997: 399) “Principle of Iconic Ordering” may be seen working here.

- (40) Constituents conform to GP1 [Principle of Iconic Ordering] when their ordering in one way or another iconically reflects the semantic content of the expression in which they occur.

However, the order of the discourse-relational particle in front of the backgrounding particle can also be derived from scope relations.

## 6 Conclusion

The particles in the second sentence position in Old Indic are partly stressed, partly unstressed. Firstly, focus particles have stressed and unstressed representations. The focus particles associate with their focus exponents inside the sentence forming a clitic complex and might be moved with their host to the left. Only after topicalization of their hosts the unstressed and stressed focus particles get into the Wackernagel position. As shown in (3), movement into the specifier position of a functional head takes place. In any case the focus particles constantly follow a phonological word while assigning a special focus accent to it.

The situation is different with the discourse particles discussed. The particles *ha* and *vái* always occur in the Wackernagel position, hence they are true Wackernagel particles. Of these, *ha* is a signal for a change of perspective. It is a discourse-relational or foregrounding particle. Compared to it, the backgrounding particle *vái* expresses the speaker's attitude to an addressee-based as well as to self-directed stock of knowledge and assumptions. *vái* has evidential and epistemic features, whereby the meanings of *vái* represent the speaker's position to the truth-value or factual status of the proposition. The discussed discourse particles *ha* and *vái* are combinable. In combination, only the word order *ha vái* can be found. The fixed order may be iconic, mapping scope dominance of discourse structuring over illocutionary force, or it results from scope relations being associated with these particles. In the first place the discourse-relational particle *ha* appears. The backgrounding particle *vái* follows, signaling that the proposition is uncontroversial: the anchoring of the utterance in the discourse has scope over the presupposition that the content is undisputed. Hence, *ha* and *vái* are manifestations of distinct levels of discourse.<sup>24</sup> Using Delbrück's (1888) term *Satzgedanke*, two different ideas of the sentence are expressed by *ha* and *vái*, a discourse-relational strategy and the speaker's attitude towards the proposition in the background of speech.

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<sup>24</sup> The semantic contribution of the particle cluster is compositionally derivable from the meaning of the respective particles.

## Sources

- BAU *The Bṛhadāraṇyaka Upaniṣad*. Electronic edition edited by Marcos Albino (corrected by Matthias Ahlborn), available at: <http://titus.uni-frankfurt.de/texte/etcs/ind/aind/ved/yvw/upanisad/bau/bau.htm> (accessed 7 June 2016).
- Chand.UP *Eighteen Principal Upanishads*. Edited by Vishnu Prabhakar Limaye & Ranganath Dattatreya Vadekar. Poona 1958: Vaidika Samsodhana Mandala [Transcription by Susanne Schnaus].
- RV *The R̥gveda*: Electronic edition based on *Die Hymnen des R̥gveda*, 2nd edition, edited by Th. Aufrecht (1877), entered by H.S. Ananthanarayana, available at: <http://titus.uni-frankfurt.de/texte/etcs/ind/aind/ved/rv/mt/rv.htm> (accessed 7 June 2016).
- ŚB *The Śatapatha-brāhmaṇa in the Mādhyandina-Śākhā with extracts from the commentaries of Sāyaṇa, Harisvāmin and Dvivedaganga*, edited by Albrecht Weber. Berlin 1849 [Varanasi 1964].

## References

- Abraham, Werner. 2017. Discourse marker = discourse particle = thetical = modal particle? A futile comparison. In Josef Bayer & Volker Struckmeier (eds.), *Discourse particles: Formal approaches to their syntax and semantics*, x–x. Berlin: de Gruyter.
- Axel, Kathrin. 2007. *Studies on Old High German syntax. Left sentence periphery, verb placement and verb-second*. Amsterdam: Benjamins.
- Bayer, Josef. 2001. Asymmetry in emphatic topicalization. In Caroline Féry & Wolfgang Sternefeld (eds.), *Audiatur vox sapientiae. A festschrift for Arnim von Stechow*, 15–45. Berlin: Akademie Verlag.
- Bayer, Josef. 2012. From modal particle to interrogative marker. A study of German denn. In Laura Brugé, Anna Cardinaletti, Giuliana Giusti, Nicola Munaro & Cecilia Poletto (eds.), *Functional heads. The cartography of syntactic structures*, vol. 7, 13–36. Oxford: Oxford University Press.
- Bayer, Josef & Hans-Georg Obenauer. 2011. Discourse particles, clause structure, and question types. *The Linguistic Review* 28(4). 449–491.
- Bechert, Heinz 1984. *Wörterbuch der Mythologie*. Bd. 5: *Götter und Mythen des indischen Subkontinents*. Stuttgart: Klett-Cotta.
- Coniglio, Marco. 2006. German modal particles in the functional structure of IP. *University of Venice Working Papers in Linguistics* 16. 57–95.
- Coniglio, Marco. 2011. *Die Syntax der deutschen Modalpartikeln: Ihre Distribution und Lizenzierung in Haupt- und Nebensätzen*. Berlin: Akademie Verlag.
- Coniglio, Marco & Julia Zegran. 2012. Splitting up force. Evidence from discourse particles. In Lobke Aelbrecht, Liliane Haegeman & Rachel Nye (eds.), *Main clause phenomena: New horizons*, 229–256. Amsterdam: Benjamins.
- Delbrück, Berthold. 1888. *Altindische Syntax* (Syntaktische Forschungen 5). Halle: Verlag des Waisenhauses.

- Diewald, Gabriele. 2006. Discourse particles and modal particles as grammatical elements. In Kerstin Fischer (ed.), *Approaches to discourse particles*, 403–425. Leiden: Brill.
- Diewald, Gabriele. 2007. Abtönungspartikel. In Ludger Hoffmann (ed.), *Handbuch der deutschen Wortarten*, 117–142. Berlin: de Gruyter.
- Dik, Simon C. (ed.). 1979. *The theory of Functional Grammar. Part I: The structure of the clause*. Berlin: de Gruyter.
- Egg, Markus & Johannes Mursell. 2017. Syntax and semantics of discourse particles. In Josef Bayer & Volker Struckmeier (eds.), *Discourse particles: Formal approaches to their syntax and semantics*, x–x. Berlin: de Gruyter.
- Féry, Caroline. 2012. Prosody and information structure of the German particles *selbst*, *wieder* and *auch*. In Toni Borowsky, Shigeto Kawahara, Takahito Shinya & Mariko Sugahara (eds.), *Prosody matters: Essays in honor of Elisabeth O. Selkirk*, 441–468. London: Equinox Press.
- Fischer, Kerstin. 2007. Grounding and common ground: Modal particles and their translation equivalents. In Anita Fetzer & Kerstin Fischer (eds.), *Lexical markers of common grounds*, 47–66. Leiden: Brill.
- Fortson, Benjamin W. 2004. *Indo-European language and culture: An introduction*. Malden, MA: Blackwell.
- Gärtner, Hans-Martin. 2017. Root infinitivals and modal particles. An interim report. In Josef Bayer & Volker Struckmeier (eds.), *Discourse particles: Formal approaches to their syntax and semantics*, x–x. Berlin: de Gruyter.
- Geist, Ljudmila. 2006. *Die Kopula und ihre Komplemente. Zur Kompositionalität in Populasätzen*. Tübingen: Niemeyer.
- Geist, Ljudmila. 2007. Predication and equation in copular sentences: Russian vs. English. In Ileana Comorovski & Klaus von Heusinger (eds.), *Existence: Semantics and syntax*, 79–105. Heidelberg: Springer.
- Geldner, Karl Friedrich. 1951. *Der Rig-Veda, aus dem Sanskrit ins Deutsche übersetzt und mit einem laufenden Kommentar versehen*. Bd. 1–3. Cambridge, MA: Harvard University Press.
- Gutzmann, Daniel. 2017. Modal particles ≠ modal particles (= modal particles). In Josef Bayer & Volker Struckmeier (eds.), *Discourse particles: Formal approaches to their syntax and semantics*, x–x. Berlin: de Gruyter.
- de Haan, Ferdinand. 2005. Encoding speaker perspective. In Zygmunt Frajzyngier, Adam Hodges & David S. Rood (eds.), *Linguistic diversity and language theories*, 379–397. Amsterdam: Benjamins.
- Hale, Mark. 1987a. *Studies in the comparative syntax of the oldest Indo-Iranian languages*. Harvard, MA: Harvard University dissertation.
- Hale, Mark. 1987b. Notes on Wackernagel's Law in the language of the Rigveda. In Calvert Watkins (ed.), *Studies in memory of Warren Cowgill (1929–1985): Papers from the Fourth East Coast Indo-European Conference. Cornell University, June 6-9, 1985*, 38–50. Berlin: Walter de Gruyter.
- Hale, Mark. 1996. Deriving Wackernagel's Law: Prosodic and syntactic factors. Determining clitic placement in the language of the Rigveda. In Aaron L. Halpern & Arnold M. Zwicky (eds.), *Approaching second. Second position clitics and related phenomena*, 165–197. Stanford, CA: CSLI Publications.
- Hettrich, Heinrich. 1988. *Untersuchungen zur Hypotaxe im Vedischen*. Berlin: Walter de Gruyter.
- Hinterhölzl, Roland, Svetlana Petrova & Michael Solf. 2006. Diskurspragmatische Faktoren für Topikalität und Verbstellung in der ahd. Tatianübersetzung (9. Jh.). In Shinichiro Ishihara,

- Michaela Schmit, & Anne Schwarz (eds.), *Approaches and findings in oral, written and gestural language* (Working Papers of the SFB 632, Interdisciplinary Studies on Information Structure 3), 153–182. Potsdam: Universitätsverlag Potsdam.
- Hock, Hans Henrich. 1996. Who's on first? Toward a prosodic account of P2 clitics. In Aaron L. Halpern & Arnold M. Zwicky (eds.), *Approaching second. Second position clitics and related phenomena*, 199–270. Stanford, CA: CSLI Publications.
- Insler, Stanley. 1991. Response to the paper of S. W. Jamison. In Joel P. Brereton & Stephanie W. Jamison (eds.), *Sense and syntax in Vedic* (Panels of the VIIth World Sanskrit Conference, Vol. 4), 57–65. Leiden: Brill.
- Jacobs, Joachim. 1991. On the semantics of modal Particles. In Werner Abraham (ed.), *Discourse particles*, 141–162. Amsterdam: Benjamins.
- Jónsson, Jóhannes Gísli. 2010. Icelandic exclamatives and the structure of the CP layer. *Studia Linguistica* 64(1). 37–54.
- Jónsson, Jóhannes Gísli. 2017. Discourse particles and hvað-exclamatives. In Josef Bayer & Volker Struckmeier (eds.), *Discourse particles: Formal approaches to their syntax and semantics*, x–x. Berlin: de Gruyter.
- Kozianka, Maria. 2000. Partikeln und ihre Kombination im Ṛgveda. In Michaela Ofitsch & Christian Zinko (eds.), *Festband 125 Jahre Indogermanistik in Graz. Arbeiten aus der Abteilung „Vergleichende Sprachwissenschaft“*, 223–230. Graz: Leykam.
- Kratzer, Angelika & Lisa Matthewson. 2009. Anatomy of two discourse particles. Paper presented at *SULA5 – Semantic of Under-represented Languages in the Americas V*, MIT/Harvard University, May 15–17, 2009.
- Krisch, Thomas. 1990. Das Wackernagelsche Gesetz aus heutiger Sicht. In Heiner Eichner & Helmut Rix (eds.), *Jacob Wackernagel und die Indogermanistik heute. Kolloquium der Indogermanischen Gesellschaft vom 13. bis 15. Oktober 1988 in Basel*, 64–81. Wiesbaden: Reichert.
- König, Ekkehard. 1991. *The meaning of focus particles. A comparative perspective*. London: Routledge.
- Lakoff, Robin. 1971. If's, and's and but's about conjunction. In Charles J. Fillmore & D. Terence Langedoen (eds.), *Studies in linguistic semantics*, 115–149. New York: Holt, Rinehart & Winston.
- Lühr, Rosemarie. 2004. Sprechaktbegründungen im Altindischen. In Thomas Krisch, Thomas Lindner, Ulrich Müller, Franz Hundsnurscher & Cornelius Sommer (eds.), *Analecta homini universali dicata. Arbeiten zur Indogermanistik, Linguistik, Philologie, Politik, Musik und Dichtung. Festschrift für Oswald Panagl zum 65. Geburtstag*, 130–144. Stuttgart: Hans-Dieter Heinz.
- Lühr, Rosemarie. 2009. P2-Partikeln in indogermanischen Sprachen. In Elisabeth Rieken & Paul Widmer (eds.), *Pragmatische Kategorien. Form, Funktion und Diachronie. Akten der Arbeitstagung der Indogermanischen Gesellschaft vom 24.–26.09.2007 in Marburg*, 173–186. Wiesbaden: Reichert.
- Lühr, Rosemarie. 2010. Partikeln in indogermanischen Sprachen. *Linguistic online* 44(4). 127–151. <https://bop.unibe.ch/linguistik-online/article/view/408/647> (accessed 7 June 2016).
- Mikkelsen, Line. 2005. *Copular clauses: Specification, predication and equation*. Amsterdam: Benjamins.

- Müller, Sonja. 2017. Combining *ja* and *doch*: A case of discourse structural iconicity. In Josef Bayer & Volker Struckmeier (eds.), *Discourse particles: Formal approaches to their syntax and semantics*, x–x. Berlin: de Gruyter.
- Palmer, Frank R. 2001. *Mood and modality*. Cambridge: Cambridge University Press.
- Petrova, Svetlana. 2017. On the status and the interpretation of the left-peripheral sentence particles *inu* and *ia* in Old High German. In Josef Bayer & Volker Struckmeier (eds.), *Discourse particles: Formal approaches to their syntax and semantics*. Berlin: de Gruyter.
- Petrova, Svetlana & Michael Solf. 2008. Rhetorical relations and verb placement in the early Germanic Languages. A cross-linguistic study. In Catherine Fabricius-Hansen & Wibke Ramm (eds.), *'Subordination' versus 'coordination' in sentence and text. A cross-linguistic perspective*, 329–351. Amsterdam: Benjamins.
- Rooth, Mats E. 1985. *Association with focus*. Amherst, MA: University of Massachusetts dissertation.
- Speyer, Jacob Samuel. 1896. *Vedische und Sanskrit-Syntax* (Grundriss der Indo-Arischen Philologie und Altertumskunde, I. Bd., 6. Heft). Strassburg: Karl J. Trübner.
- Stalnaker, Robert. 2002. Common ground. *Linguistics and Philosophy* 25(5–6). 701–721.
- Steube, Anita & Stefan Sudhoff. 2007. Negation und Fokuspartikeln in der Informationsstruktur der deutschen Standardsprache der Gegenwart. In Sandra Döring, & Jochen Geilfuß-Wolfgang (eds.), *Von der Pragmatik zur Grammatik*, 87–108. Leipzig: Leipziger Universitätsverlag.
- Struckmeier, Volker. 2009. Läuse im Fell: Partikeln und Split-C. Paper presented at *Generative Grammatik des Südens – GGS 2009*, Leipzig, University of Leipzig, May 22–24, 2009. <http://www.uni-leipzig.de/~asw/ggs/Handouts/Struckmeier.pdf> (accessed 7 June 2016).
- Struckmeier, Volker. 2014. *Ja doch wohl C?* Modal particles in German as C-related elements. *Studia Linguistica* 68(1). 16–48.
- Sudhoff, Stefan. 2010. *Focus Particles in German: Syntax, prosody, and information structure*. Amsterdam: Benjamins.
- Tenny, Carol L. & Peggy Speas. 2004. The interaction of clausal syntax, discourse roles, and information structure in questions. Paper presented at the *Workshop on Syntax, Semantics and Pragmatics of Questions, 16th European Summer School in Logic, Language and Information*, Université Henri Poincaré, Nancy, France, August 13, 2004. <http://www.linguist.org/ESSLI-Questions-hd.pdf> (accessed 7 June 2016).
- Thurmair, Maria. 1989. *Modalpartikeln und ihre Kombinationen*. Tübingen: Niemeyer.
- Viesel, Yvonne. 2017. Discourse particles “embedded”: German *ja* in adjectival phrases. In Josef Bayer & Volker Struckmeier (eds.), *Discourse particles: Formal approaches to their syntax and semantics*, x–x. Berlin: de Gruyter.
- Wackernagel, Jacob. 1891/1892. Über ein Gesetz der indogermanischen Wortstellung. *Indogermanische Forschungen. Zeitschrift für indogermanischen Sprach- und Altertumskunde* 1. 333–436.
- Zeldes, Amir, Julia Ritz, Anke Lüdeling & Christian Chiarcos. 2009. ANNIS: A search tool for multi-layer annotated corpora. In Michaela Mahlberg, Victorina González-Díaz, & Catherine Smith (eds.), *Proceedings of the Corpus Linguistics Conference – CL2009*, 358–362. <http://ucrel.lancs.ac.uk/publications/cl2009/#papers> (accessed 7 June 2016).