On secondary predicates in Vedic Sanskrit Syntax and semantics

von Antje Casaretto

Abstract: This paper explores the morpho-syntactic and semantic properties of secondary predicates in Vedic Sanskrit based on a corpus of about 1.500 sentences collected from the *Rigveda* and various prose texts. The features discussed include, among others, possible combinations with main predicates and controllers, word order, and semantic range of secondary predicates. Regarding word order, two tendencies stand out: edge-placement, possibly in connection with heaviness, and post-controller position, especially in Vedic prose, with exceptions being at least partly due to information structure. The semantic range expressed by secondary predicates is very broad with many expressions located in a continuum between participant and event orientation, putting some of them semantically into the vicinity of event-oriented adverbials. This study is situated within an overall research on alignment change in Indo-Aryan: our hypothesis is that the main-clause use of the past passive participles or *ta*-forms, i.e. the forms that in later historical stages trigger ergative alignment, may have originated in subordinate usages as secondary predicates.

Keywords: Vedic Sanskrit, secondary predicates, noun-adjective distinction, form-function mapping, flexible word order, ergativity, alignment change.

eISBN: 978-3-7520-0519-6

1 Introduction¹

In Indo-European linguistics and especially in the study of Vedic Sanskrit, secondary predicates have until recently not been studied exhaustively. After some short remarks by Delbrück (1878) on the language of Vedic prose there had been a long gap in the treatment of this topic. In recent years, though, the study of secondary predicates in Indo-European languages has seen a surge of interest, often building on the works of Schultze-Berndt & Himmelmann (2004) and Himmelmann & Schultze-Berndt (2005, eds.), who laid important theoretical foundations and offered a broad typological overview. Papers on secondary predicates in various Indo-European languages have been published within various theoretical frameworks, e.g., on Hittite (Rieken 2017), New Testament Greek (Haug 2011), Young Avestan (Sommer 2017) and Vedic Sanskrit (Keydana 2000, Cantera 2005, Widmer & Scarlata 2017).

This paper builds on Casaretto & Reinöhl (*subm.*) which deals with the challenge of identifying discourse functions in a language no longer spoken and where formal clues are mostly absent due to its 'non-configurational' characteristics (e.g., flexible word order of constituents, discontinuous nominal expressions, null anaphora).³ The authors argue that secondary predicates can nevertheless often be delimited from other functions connected

This research has been conducted within the project "B 03: Agent prominence and the diachrony of predication in Indo-Aryan" in the Collaborative Research Centre 1252 *Prominence in Language* (DFG, German Science Foundation). Our focus lies on the early stages of the development of participial forms with an originally nominal functional range into main clause nuclei over the course of Indo-Aryan history. Many thanks to Salvatore Scarlata and Paul Widmer (Zürich) and Uta Reinöhl and Simon Fries (Köln), who commented on earlier versions of this paper, and also to two anonymous reviewers for their valuable and helpful comments.

² Cp. also on Latin Heberlein (1996), Burkard & Schauer (2012: 354-359), on Ancient Greek Crespo, Conti & Maquieira (2003: 28), Bakker (2009: 217), also Conti (to appear) on Gr. ἑκών 'voluntary, deliberate', and on compounds in the Rigveda Scarlata & Widmer (to appear) and Scarlata & Widmer (subm.). I would like to cordially thank these researchers for sending me their unpublished manuscripts.

I use the term 'non-configurational' here as a short-hand for the above-mentioned characteristics without any of the theoretical implications that were traditionally attached to it (cp. on this also Reinöhl 2020). While the characteristics as such stand,

with the nominal domain (i.e. attributes, appositions, referring expressions). As a starting point, they build on the definition that secondary predicates are participant-oriented expressions describing a state or condition of a referent that overlaps with the temporal frame set by the main predicate. Accordingly, typical examples encode stage-level concepts, such as *angry* or *naked* (e.g. *he left the room angry/naked*). Individual-level concepts, on the other hand, describe more permanent features of the referent like body size or eye color and therefore are consistent with an analysis as (restricting) attribute or apposition (Himmelmann & Schultze-Berndt 2005: esp. pp. 1-15). Syntactically speaking, secondary predicates are adjuncts that function as a second predication beside the main predicate while being controlled by another constituent (in the following: controller, cp. Corbett 2006: 4, 35-39), typically an argument. In Indo-European languages, the morphology of secondary predicates is nominal or – to a lesser degree – pronominal.

Since stage-level readings like the just mentioned *angry* or *naked* may of course also occur with other nominal functions, e.g., attributes, it follows that a purely semantic definition is not sufficient to identify secondary predicates. Especially nominals denoting emotional or physical states are frequently used in both readings, and often only the context may decide which reading is more probable. While in languages like English, word order is decisive, cp. *The angry/sick patient left the hospital* (attribute) vs. *The patient left the hospital angry/sick* (secondary predicate)⁴, this criterion will obviously not work in a flexible word order language like Vedic Sanskrit. In the following section, I will therefore briefly outline our methodological approach.

1.1 How to identify secondary predicates in Vedic Sanskrit

In the literature, it is generally assumed that in the absence of formal marking, only the context in which an expression occurs enables us to identify its

it is clear that they are all governed by certain factors, in particular information structure (see, e.g., Lowe 2015: 37-46 with references on word order; Reinöhl 2020 on discontinuity). For the syntax of peripheral arguments and adjuncts, though, much work remains to be done. In the remainder of this paper, I will use the more neutral term 'flexible word order language' (see also Reinöhl 2020).

⁴ As opposed to *the English patient*, where only individual-level reading, i.e. as an attribute, is possible.

function. ⁵ In Casaretto & Reinöhl (subm.), we have tried to narrow this down a bit by suggesting several clues out of the syntactic and pragmatic context: One of these clues is the embedding of a secondary predicate in one or both parts of a relative-correlative complex clause: If the form is used for expressing the condition of a participant while he undergoes a certain event, this strongly suggests a reading as a secondary predicate. Similary, temporal or manner adverbs (e.g. adyá 'today', sadyáh 'on the same day') may emphasize the temporal overlap with the main predicate. Thirdly, a special syntactic constellation of matrix verb in the second person without overt agent is another important clue (more on this in 4.5.1 below). In the majority of cases, however, we can only rely on more general contextual information and textual coherence, as has already been pointed out by other researchers. Still, the analysis always has to be consistent with a stage-level interpretation, i.e. this reading is a necessary, if not sufficient prerequisite for analysing a form as secondary predicate. In the following example, the exocentric compound vísnu-mukha- 'having Visnu in front' refers to a very specific situation, i.e. that of Visnu leading the gods to the heavenly world, and not to a general habit of this god – based on our knowledge of the Vedic religion:

 $(1)^6$

víṣṇumukhā		vái	devấ	ásurān
Viṣṇu_in_front.NO	M.PL.M	PART	god.NOM.PL.M	demon.ACC.PL.M
ebhyó	lokébhyo	аḥ	praņúdya	svargáṃ
DEM.ABL.PL.M	world.Al	BL.PL.M	expel.CVB	heaven.ACC.SG.M
lokám	āyan			
world.ACC.SG.M	go.IMPF.	3pl		

'(Having) Viṣṇu at the front, the gods, having expelled the demons from these worlds, went to the heavenly world.' (MS I 4,7(2))

Note that if this constellation had been a permanent characteristic of the formation of the gods, i.e. consistent with an indiviual-level reading, then this

⁻

⁵ Cp. Sommer (2017: 425) on secondary predicates in Avestan and Lowe (2015: 87) on attributes and appositions in the *Rigyeda*.

The glossing abbreviations follow the Leipzig Glossing Rules with the following additions: ACT=active, AOR=aorist, INJ=injunctive, IMPF=imperfect, LP=local particle, MID=middle, OPT=optative, PART=particle, PERS=personal pronoun, PPP=perfect passive participle.

would rather suggest an interpretation as apposition or – depending on the context – even as an attribute.

However, there remain numerous examples that cannot be straightforwardly assigned to a particular function, as they also allow for a different functional interpretation. Especially the differentiation of secondary predicates from stage-level attributes like The angry patient left the hospital as well as from loose appositions remains a problem. This can be illustrated by taking a short look at appositions: While narrow appositions in phrases such as **President** Washington are considered to be co-referential and typically encode a particular role or title of a person, loose appositions such as George Washington, the first president of the United States give additional descriptions about a referent that is already identifiable from the context. Loose appositions therefore act as non-restrictive modifiers as opposed to attributes which are (mostly) restrictive and narrow appositions, which can be either. Structurally, the latter are considered to form one complex nominal expression with the entity-referring nominal, while loose appositions involve separate nominal expressions. They may also constitute a whole string of expressions modifying the same noun (cp. Lowe 2015: 87 on RV 2,27,3). In our Vedic prose corpus, we find mostly narrow appositions with adjacent word order, while in the Rigveda, loose appositions in adjacent or non-adjacent position with regard to their modified noun are extremely frequent. Delimiting the latter from secondary predicates can be difficult, if the context does not favour either a stage-level or an individual-level interpretation (cp. on this also Casaretto & Reinöhl, subm.). However, our functional approach allows to identify about 280 cases in our corpus where the context and the other clues mentioned above clearly suggest a usage as a secondary predicate. It is these comparatively straightforward cases which form the foundation for the present paper and which enable us to discuss the syntactic and semantic properties of secondary predicates.

The central result of this study is that, despite the lack of a clear mapping of function onto form, it is possible to identify several strong formal correlates. Based on the functional understanding of what it takes to form a secondary predicate and starting with the clear cases, default mappings onto formal structure can be identified including word order preferences and preferences with regard to the types of word formation used for specific semantic functions (see sections 4.3 and 5 below).

1.2 Subtypes: Depictives, circumstantials, and resultatives

Apart from secondary predicates of the type mentioned so far, also called depictives, there are two other possible subtypes: resultatives and circumstantials. Depictives are by far the most common type of secondary predicates, while circumstantials and resultatives are either rarely attested or not easily identifiable in our corpus.

Resultatives express a state that has been reached after the event encoded by the main verb has been accomplished, e.g. *He wiped the counter clean* or *The pond froze solid.*⁷ Possible examples from Vedic are

(2)

utá médham sṛtapắkam pacantu

and ritual_offering.ACC.SG.M cooked.ACC.SG.M cook.IMP.3PL

'And let them cook the ritual offering (until it's) done.' (RV 1,162,10d, example taken from Sommer 2017: 429)

(3) dādrhānó vájram índro gábhastyoh hold.PTCP.PRF.MID.NOM.SG.M Vajra.ACC.SG.M Indra.NOM.SG.M hand.LOC.DU.M ksádmeva⁸ tigmám ... sáṁ śvad **[ksádma** tigmám ... iva sám **śvat**1 knife.ACC.SG.N like sharp.ACC.SG.N LP hone.PRS.INJ.3SG 'Holding the Vajra in (his) hands, Indra honed (it) sharp like a carving knife' (RV 1,130,4ab, example taken from Keydana 2000: 371)9

In the corpus collected for this study, the only examples possibly belonging to this category have *kar* 'make' as matrix verb, cp. for instance

⁷ Cp. on resultatives in European languages recently Riaubienė (2015), on English resultatives Croft (2012).

Throughout this paper, Sandhi phenomena have been retained in the examples except for those cases where word boundaries are blurred. There, a second line without Sandhi has been inserted.

Here, attributive function is also possible, i.e. 'like a sharp carving knife', cp. on this Scarlata & Widmer (*subm.*, 6.4), where also other examples with possibly resultative notion are discussed.

(4)

tấ **ādyằ** akṛta

DEM.ACC.PL.F edible.ACC.PL.F make.AOR.MID.3SG

'He made them [i.e. prajā- 'offspring'] edible.' (MS I 5,10(3), repeated several times)

In ex. (4), there seems to be a particularly close semantic tie between matrix verb and the nominal, which is reminiscent of complex predicates like English *John made her happy*, where the predicative complement, *happy*, is obligatory in order to complete the sentence (English example discussed in Riaubienė 2015: 7). Precisely because of this close semantic relation it is controversial whether resultatives actually are a subtype of secondary predicates or whether they are a completely separate type of adjunct. In some languages, they are expressed by formal means different from secondary predicates, e.g. by complex predicates (Himmelmann & Schultze-Berndt 2005: 4, also Simpson in the same volume, pp. 83-85, on Warlpiri, where resultatives are encoded by nominals with special affixes). It is therefore not certain whether $\bar{a}dy\hat{a}$ - 'edible' in the example above should be classified as resultative or as complex predicate (cp. on this also Casaretto & Reinöhl, *subm.*).

Circumstantials differ from depictives in that there is not only a temporal overlap but also a conditional or concessive relation between the two predicates, e.g. *I can't work hungry* or *even hungry I can still work* (Himmelmann & Schultze-Berndt 2005: 15-19). Although this sounds like a straight-forward criterion, many Vedic examples lend themselves to various readings, and especially the conditional reading is frequently possible as well (cp. also the examples given in Scarlata & Widmer, *subm.*, 6.3), cp. the following example:

```
(5)
índrá
                            vāhi
Γíndra
                   á
                            vāhil
                            drive.IMP.2SG
Indra.VOC.SG.M
                   LP
dhivésitó
                                               víprajūtah
[dhiyā
                                               víprajūtah]
                  işitáh
thought.INS.SG.F
                  urge_on.PPP.NOM.SG.M
                                               sped by poets.NOM.SG.M
sutávatah
                                      úpa
provided with Soma, GEN, SG, M
                                      LP
bráhmāni
                            vāghátaḥ
sacred formulation.ACC.PL.N cantor.GEN.SG.M
```

'O Indra, drive here! – **roused by our insight**, **sped by our inspired poets**, to the sacred formulations of the cantor who has the pressed soma.' (RV 1,3,5ab, Jamison & Brereton 2014, similarly RV 1,33,14c *śaphácyuto renúr nakṣata dyắm* '**stirred up by hooves**, the dust reached heaven')

Here, *iṣitáḥ* might be interpreted as depictive ('having been roused') or as circumstantial ('because you have been roused').

Himmelmann & Schultze-Berndt (2005: 17-18) suggest the scope of negation as possible criterion for identifying circumstantials, since they are non-focal and thus remain outside the scope of the negation (see also Conti, to appear, who uses this criterion on Gr. ἑκών). Our corpus only has two examples with negation, though, both from the Śatapatha Brāhmaṇa. Regarding this criterion they would both qualify as circumstantials, cp.

```
(6)
nàivāham
                                      tám
                   ahám
                                      tám]
ſná
         evá
NEG
         PART
                   PERS.NOM.1SG
                                      DEM.ACC.SG.M
iīvantam
                            hāsvāmīti
[iīvantam
                            hāsyāmi
                                                íti]
live.PTCP.PRS.ACT.ACC.SG.M leave.FUT.1SG
                                                OUOT
'I will not leave him while he lives.' (ŚB 4,1,5,9; cp. also ŚB 1,8,1,6 [ex. 28])
```

It is possible and quite probable that more of the examples analysed as depictives in this paper actually belong to the category of circumstantials, but due to the lack of clear examples I will refrain from a decisive delimitation of both functions for now and use the terms 'depictives' and 'secondary predicates' synonymously for all expressions that are not resultatives.

This paper is structured as follows: After introducing our corpus in section 2, previous treatments of Vedic secondary predicates are discussed in section 3. The bulk of this paper is formed by sections 4 and 5: Section 4 treats various syntactic features of secondary predicates, like their combination with main predicates (4.1), the case form of the controller (4.2), word order (4.3), word classes and construction types (4.4), and morphological marking (4.5). Section 5 gives an overview over the semantic range attested with secondary predicates and discusses their relation to event-oriented adjuncts. The conclusion in section 6 sums up our findings and contextualizes or study within our overall research on alignment change in Indo-Aryan.

2 Corpus

The corpus this analysis is based on consists of 1.517 sentences collected from various Vedic texts, starting with the *Rigveda* (315 sentences, all containing participles, from RV 1,1,1-1,61,6 and 2,1,1-2,15,7). In order to include a diachronic perspective in our analysis and for a wider perspective on word order, we have enlarged our corpus substantially by some prose texts, namely the *Maitrāyaṇī Saṃhitā* (730 sentences: MS I 4,5(1) - I 5,13(1)), the *Jaiminīya Brāhmaṇa* (225 sentences: JB 1,5-7; 1,11-13; 1,22-25; 1,28; 1,68-69; 1,73; 1,85; 1,87; 1,89; 1,98-99), and the *Śatapatha Brāhmaṇa* (247 sentences: ŚB 1,8,1,1-11; 4,1,3,1-16; 4,1,5,1-16). All sentences are morphologically glossed and annotated for grammatical roles and animacy, based on the GRAID schema (Haig & Schnell 2011).

Due to the restrictions mentioned in the previous section, precise numbers for the different syntactic functions are hard to provide. Still, we count about 280 possible candidates for secondary predicates in our corpus. Their distribution is uneven, though, with the majority of them found in the *Rigveda* where 34% of the sentences contain one – or frequently more than one – secondary predicate (145 attestations in all). The other texts range between 13% (*Jaiminīya Brāhmaṇa*, 34 attestations) and 8% (*Maitrāyaṇī Samhitā* with 75 attestations and Śatapatha Brāhmaṇa with 28 attestations).

_

¹⁰ By selecting a corpus from book I and II we see evidence from different chronological strata of the *Rigveda*. While it would of course be preferable to include more material and also other books, we need to postpone this to a later date.

For the Rigveda edition cp. van Nooten & Holland (1994), for the Maitrāyaṇī Samhitā von Schroeder (1881-1886), for the Jaiminīya Brāhmaṇa Caland (1919), for the Śatapatha Brāhmaṇa Weber (1855). The Rigveda translations take into account Jamison & Brereton (2014) and Geldner 2003 [1951]. For the Maitrāyaṇī Samhita translations cp. Amano (2009), for the Jaiminīya Brāhmaṇa Caland (1919), and for the Śatapatha Brāhmaṇa Hettrich (1988).

The prose glosses are our own. For the *Rigveda* glosses cp. the web-based *VedaWeb* research platform, an online infrastructure for the linguistic study of Indo-Aryan texts currently developed at the University of Cologne. A beta version is already accessible (vedaweb.uni-koeln.de).

For our research purposes, we have added certain formal and functional categories to the basic GRAID annotation set regarding sub-types of participles and their various syntactic uses.

It is important to bear in mind that the different percentages of the Rigveda and the prose texts respectively have two origins: Firstly, for research reasons, we have taken only those sentences of the Rigveda that contain participles, while we have collated cohesive text paragraphs from the prose texts. Thus, our data is skewed towards a preponderance of participles used as secondary predicates, and it is not possible to directly compare the numbers given for the Rigveda with those given for the prose texts. Still, even looking only at the prose texts, there are numerous examples of participles in this function, so despite the bias of our corpus the tendency for participles to be used as secondary predicates is confirmed. Secondly, one has to bear in mind genre effects: The highly stylized language of the Rigveda is characterized, among other features, by poetic descriptions of the various deeds of the Vedic gods. These are frequently expressed by nominals functioning as appositions, attributes or secondary predicates, all linked by agreement to another nominal constituent.¹⁴ The style of the Vedic prose, on the other hand, is much simpler. 15 This holds especially for the non-narrative Maitrāyanī Samhitā-passages where sentences consisting of subject and nominal predicate (with or without overt copula) abound, cp. the following two examples from the *Rigveda* and the *Maitrāvanī Samhitā*, respectively, as typical representatives of their genre:

```
(7) RV 1,1,7
úpa
         tvāgne
                                              divé-dive
[úpa
                            agne
                                              divé-dive]
LP
         PERS.ACC.2SG
                            Agni.VOC.SG.M
                                              daily
                                     dhivá
dósāvastar
                                                        vavám
evening illuminator.voc.SG.M
                                     insight.INS.SG.F
                                                        PERS.NOM.1PL
                  bháranta
homage.ACC.SG.N bring.PTCP.PRS.ACT.NOM.PL.M
émasi
Γá
         imasi]
         go.PRS.1PL
LP
```

'We approach you, o Agni, illuminator in the evening, every day with our insight, bringing homage.' (Jamison & Brereton 2014)

¹⁴ Following Corbett (2006, esp. pp. 5-7) I prefer "agreement" instead of "concord" as term irrespective of whether we are dealing with the nominal or verbal domain.

Cp. Lowe (2015: 37⁴⁵, with references) on the possible artificiality of the language of Vedic prose.

(8) MS I 4,5(4)

 $agn\acute{e}rv\acute{a}$ $es\acute{a}$ $y\acute{o}ga\rlap/e$ $[agn\acute{e}h$ $v\acute{a}i$ $es\acute{a}h$ $y\acute{o}ga\rlap/e$]

Agni.GEN.SG.M PART DEM.NOM.SG.M harnessing.NOM.SG.M

Ex. (7) contains a loose apposition (dóṣāvastar 'illuminator in the evening', modifying the vocative agne 'Agni', cp. similarly also in RV 4,4,9; 7,15,15) and a secondary predicate (námo bhárantaḥ 'bringing homage', controlled by vayám 'we'). There is no finite verb in the Maitrāyaṇī Saṁhitā-example (8), as the copula may be omitted, and the noun in the nominative (yógaḥ 'harnessing') functions as a nominal predicate.

3 Previous treatments of secondary predicates in Vedic Sanskrit

Until about 20 years ago, Delbrück's (1878) brief remarks were the most detailed ones on secondary predicates in Vedic Sanskrit, although not using this terminology. He writes on p. 40 on the use of participles in the *Śatapatha Brāhmana*:

"Das Participium steht hinter dem Substantiv. ... Zum Beispiel ...: yáthedám paśávo yuktá manuṣyèbhyo váhanty, evam cándāmsi yuktáni devébhyo yajñám vahanti wie das Zugvieh, wenn es angeschirrt ist, den Menschen etwas fährt, so fahren die Metra, angeschirrt, zu den Göttern das Opfer hin 1,8,2,8 ... In diesen Sätzen, die sich leicht vermehren lassen, erfüllt das Participium seine eigentliche Bestimmung, einen Nebenvorgang auszudrücken." (Delbrück 1878: 40, highlighting added)¹⁶

Delbrück connects here the "proper use" of participles – to express an "accompanying" or "side event" – with a particular syntactic position, namely that of following the participant in question. Despite Delbrück's choice of words in speaking of a side event – which would rather suggest adverbial function word – the examples he gives do not so much express side *events*,

-

^{&#}x27;This is the harnessing of Agni.'

[&]quot;The participle stands after the noun. ... e.g. ...: yáthedám paśávo yuktá manuṣyèbhyo váhanty, evam cándāmsi yuktáni devébhyo yajñám vahanti 'Just like cattle, when yoked, drives (sth.) to men, so the metres, when yoked, drive the sacrifice to the gods.' In these sentences, to which more can be added easily, the participle fulfils its proper function, i.e. the expression of a side event." [A.C.]

but rather *conditions* of the participant in question while he undergoes the state or event expressed by the main predicate. In other words: *yuktāni* 'yoked' in the quote above is a participant-oriented adjunct with stage-level reading (more on the functional distinction between secondary predicates and adverbs in section 5 below). In section 4.3 below, Delbrück's claim regarding word order will be confirmed for our whole prose corpus, even though there are some cases clearly pointing towards secondary predicate function while showing a different syntactic position. Delbrück does not restrict the function of expressing "side events" to participles alone, but points out several times (pp. 36-37, 54-55) that adjectives may also be employed in this way (e.g. *prajā-kāmaḥ* 'wishing offspring', ŚB 2,1,2,6). This point will be taken up in section 4.4.

After Delbrück's preliminary remarks, secondary predicates have for a long time not been part of any in-depth study of Vedic Sanskrit. Then two papers from 2000 and 2005 offer further important insights into this topic. In his paper "Prädikativa im Altindischen", Keydana (2000) treats secondary predicates in a broader perspective including also related functions like complex predicates. Differentiating between stage-level and individual-level predicates (p. 370) he offers examples for various semantic relations between "Prädikativa" and the matrix verb, e.g. concessive, causal, directional, and resultative. He remarks on the lack of a formal marker for secondary predicates and points out the typological relevance of his findings. I will explore this last point in more detail in the following sections by comparing our findings closely with that of Simpson (2005) on Warlpiri, another flexible word order language that shows many similarities to Vedic Sanskrit regarding, among others, the usage of secondary predicates. ¹⁷ Cantera's paper (2005) covers the whole Indo-Iranian language family. He uses the term "adverbal-prädikative Adjektive" focusing on directional adjectives with the suffix -añc- and touching on the problem of delimiting participant- and event-oriented adjuncts.

A more recent and detailed treatment of secondary predicates is found in Lowe's (2015) study of participles (proper participles, i.e. excluding *ta*-

A detailed comparison with other Indo-European languages remains outside the topic of this paper, but cp. section 4.3 for some remarks on word order of depictives in Ancient Greek. On problems of delimiting secondary predicates from other nominal functions cp. Rieken (2017) on Hittite and Sommer (2017) on Avestan.

forms) in the *Rigveda*. In his chapter on the syntactic properties of secondary predicates (p. 94-100), he defines their function as follows:

"The second major use of participles is the 'converbal' use. As discussed above converbal participles are indistinguishable from adnominal participles in terms of morphology and agreement, but syntactically and semantically they modify the clause and/or the main predicate of the clause rather than the NP with which they agree ... the participial phrase ... predicates something about the subject of the main clause, with which it agrees in number, person, and gender, at the clausal level. This predication is distinct from the predication of the main verb of the clause, but these two predications necessarily interact and produce a combined predication for the clause." (Lowe 2015: 94)

While the term 'converbal' for secondary predicates is somewhat misleading, since it is normally used for indeclinable forms like the Vedic absolutive (cp. on this Keydana's 2016 review, but also Lowe 2015: 86 where he argues in favour of the term on functional grounds), his definition of secondary predicates otherwise strongly overlaps with our own. In his further discussion (esp. pp. 96-98), he focuses on the question which case forms are attested by secondary predicates and whether they are restricted to the combination with arguments or whether they can also be combined with adjuncts of the clause. This topic will be taken up in section 4.2. In Lowe's chapter 5 (pp. 161-196), the semantic properties of secondary predicates are discussed in detail together with how they are mirrored in word order. We will return to this in sections 4.3 and 5 below.

There is another recent approach to this topic undertaken by S. Scarlata and P. Widmer. In Widmer & Scarlata (2017), they elaborate on the use of *suprayāṇá*- 'be of easy passage' (attested three times in the Āprī-hymns of the RV) and analyse this form as a secondary predicate. This article is followed by two others focusing on exocentric compounds in the *Rigveda*, which have not yet been published, but which I have been given access to: Scarlata & Widmer ("Rigvedische Komposita in der rekursiven Satzverknüpfung", *to appear*) describe the difficulty of identifying secondary predicates among other related nominal functions along similar lines to Casaretto & Reinöhl (*subm.*), including remarks on case agreement and syntactic position (this will be taken up in 4.3.2 and 4.5.1 below). In another paper ("Rgvedic Adjectival Compounds as Expressions of Linked Events", *subm.*), Scarlata & Widmer describe the usage of compounds as secondary

predicates in the *Rigveda* focusing on the various semantic relations between secondary predicate, its controller and the matrix verb. We will return to this in section 5.

In the following sections, the syntactic and semantic properties of the depictives (participles and other formations) found in our *Rigveda* and prose corpus will be discussed in detail and our results confronted with the results presented in this section.

4 Syntax

In this section, I will discuss morphosyntactic aspects of secondary predicates in the order set out in Himmelmann & Schultze-Berndt (2005: 50-66), addressing combinations of secondary predicate and main predicate (4.1), case form of the controller (4.2), syntactic position (4.3), word class and construction type (4.4), and morphological marking (4.5). My findings will be consistently compared with those of Simpson (2005) on English and Warlpiri.

4.1 Combinations with main predicates

Typologically, languages behave differently regarding possible combinations of main and secondary predicates, although this has not yet been researched extensively. In English, the main predicate appears to be restricted mostly to verbs of motion and position (Himmelmann & Schultze-Berndt 2005: 51 with references, cp. also Croft 2012: 343-345). On the other hand of the spectrum there are languages like Warlpiri, which are less restrictive. In her study, Simpson (2005: 99-104) orders her material according to Vendler's (1967) types: states, activities, accomplishments and achievements. Since I expect Vedic to behave similarly to Warlpiri, I will follow her line of analysis here and compare her results with my own data.

Because our language sample consists of a historical corpus, possible genre effects cannot be countermanded by elicitations and tests. Since this may bias the outcome of our analysis, the following points have to be kept in mind as a *caveat*, before we take a closer look at the matrix verbs attested beside secondary predicates:

Firstly, all our texts are connected – more or less closely – with the Vedic sacirifical rituals and so, by necessity, cannot be expected to reflect everyday

speech in all aspects. For instance, the vocabulary, including that of the matrix verbs, revolves around the Vedic ritual, i.e. verbs like *yaj* 'sacrifice', *hav* 'libate', *stav* 'praise', etc. are attested very frequently. All of them are high on the agentivity scale (Dowty 1991) – but this does not necessarily mean that secondary predicates preferably combine with those kind of verbs.

Secondly, the *Rigveda* is a text with a very specific function, namely that of calling the gods to attend the sacrifice. Thus, a large percentage of the sentences contain verbs of motion, often accompanied by a local particle or adverb meaning 'hither', cp. as a typical example (5) above with \hat{a} $y\bar{a}hi$ 'drive hither!'.

4.1.1 States

In English, verbs expressing a state are not frequently combined with depictives. If, however, the matrix verb itself is used in a stage-level reading, the combination with depictives may be grammatical, as in *Many linguists were intelligible drunk* or *I look better naked* (examples from Simpson 2005: 101). In Vedic Sanskrit, this seems to hold as well: stage-level stative verbs (i.e. $\bar{a}s$ 'sit', $\dot{s}ay$ 'lie') can easily be combined with secondary predicates, cp. with $\dot{s}ay$ 'lie'

(9)

purutrá vṛtró aśayad vyàstaḥ

in_many_places Vṛtra.NOM.SG.M lie.IMPF.3SG fling_apart.PPP.NOM.SG.M

'Vṛtra lay (there), flung apart in many places.' (RV 1,32,7d, Jamison & Brereton 2014)

While the combination with individual-level stative verbs seems possible in Vedic, the attested contexts point to a stage-level reading. This can be illustrated by the verb *roc* 'shine' which occurs several times and mostly refers either to the fire god Agni or to the sacrificial fire (*agni*-), in some contexts possibly to both. While a fire should naturally be bright constantly (i.e. individual-level reading), the collocations with a depictive suggest a stage-level reading referring to the flaring up of the sacrificial fire during the moment of libation, cp.

(10)

śúcihpāvaka...ágnebṛhádblazing.NOM.SG.Mpure.VOC.SG.MAgni.VOC.SG.MhighlyvírocasetvámghṛtébhirLPshine.PRS.MID.2SGPERS.NOM.2SGghee.INS.PL.N

ấhutah

bepour.PPP.NOM.SG.M

'O pure Agni ... blazing you shine out loftily, when you are bepoured with ghee(stream)s.' (RV 2,7,4, Jamison & Brereton 2014)

In Warlpiri, examples with stative verbs and depictives are difficult to assess, because, e.g, the copula does not have to be expressed overtly, so it is often unclear whether a nominal functions as primary or secondary predicate (Simpson 2005: 101). In Vedic Sanskrit, the copula is also non-obligatory, cp. without overt copula and two nominals with *johūtraḥ* 'invoked' functioning as nominal predicate and *prathamáḥ* 'first' as depictive:

(11)

johútro agníḥ **prathamáḥ**invoked_on_every_side.NOM.SG.M Agni.NOM.SG.M first.NOM.SG.M

pitéva

[pitấ iva] father.NOM.SG.M. PART

4.1.2 Activities

Activity verbs, together with accomplishment verbs, form the largest group in our corpus, also in terms of frequency, irrespective of the existence of depictives within the same sentence. In English, depictives combined with activity verbs are always controlled by the subject, cp. *Jones slapped Smith sober*, where *sober* can only refer to the state Jones was in (while Smith may

^{&#}x27;Agni (is) invoked as the first on every side like a father.' (RV 2,10,1a)18

_

Note that in this example, the analysis of *prathamáh* as secondary predicate is facilitated by the context and also by its frequent usage as such, cp. the following examples from the *Rigveda* and the *Maitrāyaṇī Saṃhitā*: RV 1,163,2b *índra eṇam prathamó ádhy atiṣṭhat* 'Indra mounted him **as the first**.' (also 2,12,1); MS I 5,5(2) *agnír hy àsyáṃ prathamó* 'dhīyata' 'Agni was laid on this (earth) **as the first**.' Cp. section 5.7 on the usage of numerals and other quantifiers as depictives.

well have been drunk at that time). In contrast to this, Warlpiri allows depictives to be predicated of subjects and objects (Simpson 2005: 102-103). Vedic Sanskrit also frequently attests controllers in the accusative case like in the following example with *yaj* 'sacrifice' as matrix verb:

(12) *índraṃ naro barhiṣádaṃ*Indra.ACC.SG.M man.VOC.PL.M sitting_on_barhis.ACC.SG.M yajadhvam

sacrifice.IMP.MID.2PL

As has already been mentioned above, our Vedic corpus contains a lot of motion and location verbs (e.g. ay, kramⁱ, gam, gā, car, yā 'go', vah 'drive', bhar 'carry'). Here, activities and accomplishments blur together insofar as these verbs are frequently accompanied by local adverbs or local particles expressing the goal of the movement, thereby changing the reading of the verbal action towards accomplishment, cp. ex. (5) above. Motion verbs without goal orientation are actually very rare in our corpus, but cp. the following example with car 'walk, run':

(13)
aśvínau ha vấ idám **bhiṣajyántau**Aśvin.NOM.DU.M PART PART here be_physician.PTCP.PRS.ACT.NOM.DU.M
ceratuḥ
walk.PRF.3DU

'The Aśvins walked (around) here (and there), working as physicians.' (ŚB 4,1,5,8)

Although *idám*, an accusative pronoun, could theoretically be interpreted as a goal, i.e. 'walked to this', the context suggests adverbial usage of the pronoun (i.e. 'here') and, thus, activity reading of the verb. But in most cases, motion verbs combined with depictives seem to have an accomplishment reading.

-

^{&#}x27;You men, sacrifice to Indra sitting on the Barhis [i.e. ritual grass].' (RV 2,3,3d)¹⁹

While an analysis as loose apposition is not entirely impossible for *barhiṣád*- due to the fact that sitting on the ritual grass can be seen as habitual characteristic of Indra during the ritual, I take this form as depictive because in the same hymn various other gods are also requested to sit down on the Barhis (RV 2,3,4.8), thus confirming a stage-level reading. On *barhiṣád*- and its usage as depictive in the *Rigveda* cp. also in detail Scarlata & Widmer (*subm.*, 6.1.5).

4.1.3 Accomplishments

In English, intransitive accomplishments cannot be combined with depictives controlled by the subject (Simpson 2005: 103 with examples). In Vedic, though, this seems possible: motion verbs that become telic and so change their reading from activity to accomplishment when combined with an adverb or local particle have just been discussed in the previous section. Cp. also the following two examples with $s\acute{a}m$ ardh 'come true, fulfil itself' and with $p\acute{a}r\ddot{a}$ $bhav^i$ 'perish':

(14)			
sấ	te	sárvā	
DEM.NOM.SG.F	PERS.DAT.2SG	all.NOM.	SG.F
<u>sámardhisyata</u>	íti		
come_true.FUT.MID	0.3sg Quot		
'This [request] wil	l all come true for y	ou.' (ŚB 1	$,8,1,9)^{20}$
(15)			
sá	etấ	evá	devátā
DEM.NOM.SG.M	DEM.ACC.PL.F	PART	god.ACC.PL.F.
ŗtvấ	pū́rvaḥ	<u>párābha</u>	<u>vati</u>
reach.CVB	first.NOM.SG.M	perish.PF	RS.3SG
'He perishes as the	first one having rea	iched the	gods.' (MS I 5,11(5)) ²¹

An example for the opposite construction, i.e. a depictive controlled by the object of a transitive accomplishment verb is possibly the following:

_

Following the translation of Hettrich (1988): "die wird sich dir vollständig erfüllen". Based on the immediately preceding context (yāmumáyā kāmcāśiṣam āśāsiṣyáse 'whatever plea you will express with me'), a reading as depictive seems semantically more plausible than taking sárvā as an attribute with elided head (āśiṣ- 'plea'), i.e. 'this whole (plea) will come true for you', although the latter remains, of course, also possible.

For the analysis as depictive rather than as apposition cp. the context: átha yéna spárdhate yéna vā vyabhicárate sá etấ evá devátā rtvấ pữrvaḥ párābhavati 'And with whom he [i.e. Agni] is competing and with whom he is performing magic, this one perishes as the first one after having reached the gods.'

(16)

yáḥ śáśvato máhy éno
REL.NOM.SG.M continual.ACC.PL.M great.ACC.SG.N sin.ACC.SG.N

dádhānān **ámanyamānāñ**

commit.PTCP.PRS.MID.ACC.PL.M not think.PTCP.PRS.MID.ACC.PL.M

chárvā <u>jaghắna</u> arrow.INS.SG.M kill.PRF.3SG

Our analysis takes śáśvataḥ '(being/doing sth.) continual(ly)' and áman-yamānan 'not thinking' as secondary predicates controlled by the object dádhānān (here: 'those who commit'). Jamison & Brereton (2014), on the other hand, translate "Who has struck with his arrow those constantly creating for themselves great guilt, the unthinking ones", interpreting áman-yamānan as apposition to dádhānān. This analysis is also possible and shows how difficult the delimitation of secondary predicates and apposition can be. Still, their translation of śáśvataḥ as 'constantly' might point to a depictive interpretation of at least this word.²³

4.1.4 Achievements

There are only three verbs in our corpus belonging to this group, all of them attested in the *Rigveda*, all of them transitive, and in all cases the depictive is predicated of the subject, cp.

(17) sám edh 'ignite':

hótrābhir a oblation.INS.PL.F f

indhate

agním mánuṣaḥ fire.ACC.SG.M son_of_Manu.NOM.PL.M

titirvámso

ignite.PRS.MID.3SG overcome.PTCP.PRF.ACT.NOM.PL.M

<u>sám</u> M.PL.M LP áti srídi

LP

srídhaḥ failure.ACC.PL.F

'With their oblations the sons of Manu <u>ignite</u> the fire, **having overcome** the failures.' (RV 1,36,7cd)

^{&#}x27;Who <u>has killed</u> with (his) arrow all those who **continually** commit great sin **without** thinking'²² (RV 2,12,10ab)

²² Cp. also Geldner (2003[1951]): "Der alle, die großen Frevel begehen, mit seinem Geschosse erschlagen hat, **ehe sie sich dessen versehen**".

On manner expressions which are formally participant-oriented adjuncts (agreement!) but semantically also event-oriented cp. 5.3 below.

(18) bhed 'split':

índro yád vajrť

Indra.NOM.SG.M when Vajra_having.NOM.SG.M

dhrsámāno ándhasā bhinád

be_bold.ptcp.prs.mid.nom.sg.m stalk.ins.sg.n split.prs.inj.3sg

valásya paridhímr iva tritáḥ

Vala.GEN.SG.M barricade.ACC.PL.F PART Trita.NOM.SG.M

'When the mace-wielding Indra, **emboldened** by the soma stalk, <u>split</u> the barricades of the Vala cave, as Trita had.' (RV 1,52,5cd, Jamison & Brereton 2014)

(19) áva sarj 'release':

jyótīmsi **kṛṇvánn** avrkấṇi

light.ACC.PL.N make.PTCP.PRS.ACT.NOM.SG.M wolf-free.ACC.PL.N

yájyave <u>áva</u> sukrátu<u>ḥ</u>

worshipper.DAT.SG.M LP very_wise.NOM.SG.M

sártavá apáḥ <u>srjat</u>

flow.INF water.ACC.PL.F release.PRS.INJ.3SG

'Making the lights free of wolves [i.e. safe] for the worshipper the very wise one (or: 'being very wise, he', i.e. referring expression or depictive) <u>released</u> the waters to flow.' (RV 1,55,6)

To sum up: In Vedic, secondary predicates may be combined with verbs of all four Vendler classes. The frequency of the respective combinations reflects that of the frequency of these verb classes overall in our corpus. The only restriction visible is a tendency to avoid individual-level stative verbs when combined with a depictive. Thus, Vedic seems to belong to those languages which, like Warlpiri, appear to be very flexible regarding combinations of matrix verbs and secondary predicates.

4.2 Controllers

Secondary predicates are typically controlled by core arguments, most frequently by the actor or A-argument of a transitive predicate, the S-argument of an intransitive predicate or the O-argument of a transitive predicate (Himmelmann & Schultze-Berndt 2005: 54). This general observation also holds true for Vedic Sanskrit. Lowe (2015: 96) states that in the *Rigveda*, roughly 90% of the participles used as secondary predicates appear in the nominative case – in contrast to participles used as attributes, where less than half are in

the nominative. The preponderance of the nominative for secondary predicates can according to Lowe be explained by the tendency for topicality of subjects (cp. p. 96: "participial predications are more commonly made about the subject of a sentence, since the subject often has a topical role in its clause"). Another reason he gives is, of course, the overall frequency of the nominative case compared to other case forms.

Our corpus shows a similar distribution: In the vast majority of sentences, the controller appears in the nominative case representing the subject or agent²⁴ of the clause as seen in the examples cited so far (about 250 examples in total). The only other case form comparatively frequently attested with depictives is the accusative (21 examples, cp. ex. [12] above).²⁵

Lowe (2015: 97-98) remains skeptical whether depictives can also be controlled by adjuncts, e.g. non-arguments like the dative of advantage or the possessive genitive. He states that the examples found in the *Rigveda* are ambiguous and might also be interpreted as attributes. We encounter the same principal problem, cp. the following two examples where an adnominal interpretation cannot be excluded (the controller is underlined, the depictive in bold print):

(20) with dative (beneficient):

agnáve

samidhyámānāyánubrūhi samidhvámānāva

íti ánubrūhi ítil

Agni.DAT.SG.M

[agnáye ignite.PTCP.PRS.MID.DAT.SG.M recite.IMP.2SG QUOT

'Recite (the Anuvakya) for Agni when he is being ignited.' (MS I 4,11(1); cp. also MS I 4,14(2) and RV 1,39,7d; 2,14,2cd)

Or rather the proto-agent (Dowty 1991), since not only agents appear in the nominative – undergoer arguments are also nominative-marked in passive or resultative constructions. In the following, though, I will continue to use the term "agent" for simplicity's sake.

Cp. also RV 1,10,8 (rghāyámāṇam); 1,33,14 (yúdhyantam); 1,34,12 (arvấncam); ?1,47,8 (arváñcāḥ, NOM.PL or ACC.PL, cp. ex. [79]); 1,53,9 (upajagmúṣaḥ); 2,12,10 (ámanyamānān); MS I 4,5(7) (satyām); I 4,12(5) (áskannam áviksubdham); I 4,13(1) (ánutpūtam); I 5,5(2) (citrám vibhvám); I 5,10(3); I 5,11(1) (ādváh); I 5,11(2) (ādvấn); I 5,12(3) (ásannāni); JB 1,11 (vidvāmsam); 1,22-25 (satah; vaśah; satyam; bhūyistham śrestham; tejah; arkāśvamedhau); 1,89 (uttisthantam); ŚB 1,8,1,6 (sántam); 4,1,5,9 (jīvantam); 4,1,5,13 (tanvānān).

(21) with genitive (possessor):

tasmān <u>mama</u> satyam iva therefore PERS.GEN.1SG truth.ACC.SG.N PART

vadataḥprakāśaitispeak.PTCP.PRS.ACT.GEN.SG.Mlight.NOM.SG.MQUOT

'Therefore, the light [i.e. fame] is mine (because of me) virtually speaking the truth.' (JB 1,22-25; cp. also MS I 4,5(1))

The next example is in the (sociative) instrumental, and I have analysed it as depictive expressing a function or role (cp. also 5.5). Still, an analysis as apposition would also be possible:

(22):

ágne gṛhapate sugṛhapatír

Agni.VOC.SG.M Grhapati.VOC.SG.M having_a_good_domestic_lord.NOM.SG.M

ahám tváyā **grhápatinā**

PERS.NOM.1SG PERS.INS.2SG having_a_good_domestic_lord.INS.SG.M

bhūyāsam sugrhapatís

COP.PREC.1SG having_a_good_domestic_lord.NOM.SG.M

tvám <u>máyā</u> **grhapatinā**

PERS.NOM.2SG PERS.INS.1SG having a good_domestic_lord.INS.SG.M

bhūyā íti COP.AOR.SBJV.2SG QUOT

Typologically, though, depictives controlled by adjuncts are not unheard of (cp. the examples in Himmelmann & Schultze-Berndt 2005: 54-55), so I consider the examples (20) – (22) above as at least possible candidates for depictives (along with locatives and ablatives which are not attested in our corpus, but cp. Lowe 2015: 97-98 on RV 5,78,9). The only case form completely excluded is the vocative, since it is syntactically not part of the clause and can therefore not be used with depictives (on this also 4.5.1 below).

4.3 Syntactic position

Constraints on the syntactic position of secondary predicates show significant diversity across languages. In English, there are certain restrictions on

^{&#}x27;Agni Gṛhapati (domestic lord), may I <u>with you</u> **as domestic lord** become (someone) who has a good domestic lord. May you <u>with me</u> **as domestic lord** become (someone) who has a good domestic lord.' (MS I 4,7(3))

word order that differentiate depictives from, e.g., manner adverbs. Depictives normally either follow an intransitive verb or the object of a transitive verb (cp. the examples in Simpson 2005: 72-75 on these and other restraints). However, there seems to be some flexibility of placement in many languages — even in English with its relatively rigid word order (Himmelmann & Schultze-Berndt 2005: 55-57 with references).

In Ancient Greek there is a clear difference between attributes and depictives regarding word order with depictives appearing in what traditional grammars call the "predicative position", i.e. outside the NP. Attributes, on the other hand, are directly preceded by the article, cp.

```
(23)
a. ὁ ἀγαθὸς ἀνήρ / ὁ ἀνὴρ ὁ ἀγαθός 'the good man'
b. ἀγαθὸς (...) ὁ ἀνήρ / ὁ ἀνὴρ (...) ἀγαθός 'the man (...) being good,' (or: 'the man is good') (examples taken from Van Emde Boas et al. 2019: 331, cp. also Bakker 2009: 217)
```

However, as ex. (23b) shows, the Greek predicative position alone does not allow to distinguish between a nominal predicate or a secondary predicate.

As expected, the position of depictives seems on first sight to be relatively unrestricted in Vedic Sanskrit, similarly to Warlpiri, both languages where information structure purposes are more relevant for the position of words and phrases than grammatical functions (on Warlpiri Simpson 2005: 75-79). In both languages, secondary predicates may appear in a variety of positions, no matter what element they are predicated of. Still, there are at least two tendencies clearly visible in our corpus: position after (and partly adjacent to) the controller (4.3.1) and edge-placement (4.3.2).

4.3.1 Post-controller position

Based on a different sample from ours, Lowe (2015: 193-196) has shown that already in the *Rigveda*, there is a tendency for secondary predicates to follow their controller. His data includes all present participles from books II-VII and IX (about 2.200 forms). There is an overall tendency for present participles to follow the noun they are in agreement with (43,8%), with only

15,2% preceding it.²⁶ The reason for this can be seen in the fact that most participles are in the nominative case, and since nominative nouns are mostly topical and therefore occur clause-initial or at least near the start of the sentence, the agreeing participle will then follow the noun by default (p. 194). Lowe then analyses in detail those instances of participles preceding their noun differentiating between adnominal uses (i.e. attributes) and various semantic functions he has established before for secondary predicates (means, equivalence, cause, purpose, contingency, temporality, chaining, manner). He concludes that "All the contextual functions found with converbal participles are relatively less common with participles that precede their noun, and by implication relatively more common with those that follow their noun." (p. 195).

In my own analysis, I will focus on the position of secondary predicates in our prose corpus. The syntax of Vedic prose shows in general a lot of recurrent word order patterns (cp. Delbrück 1878, 2009 [1888]): there is a strong tendency for the finite verb to stand clause-finally, while the subject appears closer to or in the clause-initial position. While edge-placement of other arguments or adjuncts is possible, it appears far less frequently than in the *Rigveda* (more on this in 4.3.2). Attributes mostly precede the noun they modify while appositions and depictives follow it. In other words: depictives frequently follow their controller and thereby precede the main predicate. The frequent positioning of depictives immediately after the controller has already been mentioned in Delbrück (1878: 40), and this can be confirmed in our prose corpus throughout. This holds also for most cases where the controller is not identical with the subject, cp. the following two examples from the *Maitrāyaṇī Samhitā*:

```
(24) controller = subject: yáthā <u>dhenávó</u> 'dugdhā apakrámanti as cow.NOM.PL.F unmilked.NOM.PL.F away_go.PRS.3PL 'Like cows who go away unmilked, ...' (MS I 4,5(6))
```

²⁶ The remaining 40,9% contain sentences without a modified noun and ambiguous cases.

(25) controller \neq subject:

agnáye	samidhyámānāyấ nubrūh	i	íti
[agnáye	samidhyámānāya	ánubrūhi	íti]
Agni.DAT.SG.M	ignite.PTCP.PRS.MID.DAT.	SG.M recite.IMP.2SG	QUOT
'Recite [the Anuva	akya] for Agni when he is	being ignited!' (MS I 4	$,11(1))^{27}$

Counting those instances with an overt controller, the distribution is as follows:

text	controller preceding depictive	depictive preceding controller
MS	42	7
JB	15	6
ŚB	23	5

table 1

Overall, adjacency of depictive and controller is more frequent than non-adjacency. In many instances of apparent non-adjacency, depictive and controller are separated only by a Wackernagel particle, as in

(26)		
āśíșo	<u>vái</u>	dóhakāmā
request.NOM.PL.F	PART	having_the_wish_to_be_milked.NOM.PL.F
yájamānam		abhísarpanti
sacrifice.PTCP.PRS.	MID.ACC.S	G.M towards_crawl.PRS.3PL

'Requests having the wish to be milked crawl towards the sacrificer.' (MS I 4,5(6); cp. also ŚB 1,8,1,7 [sá ha vyákhyātaḥ]; ŚB 1,8,1,10.11 [sāsmai (= sấ asmai) sárvā]; etc.)

Still, deviations from the normal pattern controller – secondary predicate – main predicate are also attested. At least some of them may be explained by topicalization. To illustrate that, we will now take a closer look at four prose examples and their context where the secondary predicate appears clause-initially. In the first example, the depictive *víṣṇumukhāḥ* 'having Viṣṇu at

_

Cp. also MS I 4,13(1) (ájyam ánutpūtam skándati); I 5,12(3) (havímsy ásannāny abhúmrset); JB 1,22-25 (no bhūyasah satah ... pratibrūhi); 1,89 (tam uttisthantam ... anūttisthet); ŚB 4,1,5,9 (tám jīvantam hāsyāmi); etc. A rare counterexample with the word order secondary predicate – controlller is JB 1,11 (etad vidvāmsam juhvatam ādāyodeti).

the front' takes up the agent *viṣṇuḥ* from the preceding sentence while adding new information as a bridging expression:

(27) MS I 4,7(2)

<u>vísnuh</u> prthivyấm vyàkramsta

Viṣṇu.NOM.SG.M earth.ACC.SG.F along_walk.AOR.3SG

gāyatréṇa chándaséti

[gāyatréṇa chándasā íti] belonging to Gāyatrī.INS.SG.N metre.INS.SG.N QUOT

'[He says:] 'Visnu has walked along the earth with the Gayatri-metre."

 $\emph{v\'{i}}$ ṣṇumukh \bar{a} $\emph{v\'{a}}\emph{i}$ $\emph{dev\'{a}}$...

Viṣṇu_in_front.nom.pl.m part god.nom.pl.m

svargám lokám āyan heaven.ACC.SG.M world.ACC.SG.M go.IMPF.3PL

The same explanation might hold for the following passage from the $\dot{S}atapatha~Br\bar{a}hmana$, where a fish rescues Manu from the advancing flood by pulling his ship towards a mountain and telling him to tether it there in order to ride out the flood. The fish points out that, if Manu does exactly as instructed, he will be saved. The demonstrative pronoun $t\acute{a}m$ at the beginning of the last sentence takes up the patient $tv\bar{a}$ from two sentences earlier, thus linking Manu more closely with the action he is required to do (see 5.8 below on emphatic pronouns):

(28) ŚB 1,8,1,6

sáhovācaápīparamvái[sáhauvācaápīparamváiDEM.NOM.SG.MPARTsay.PRF.3SGrescue.AOR.1SGPART

tvā tvā

PERS.ACC.2SG

'He said, 'I have indeed rescued you.''

vŗkṣé nấvam prátibaghnīṣva

tree.LOC.SG.M ship.ACC.SG.M against_bind.IMP.MID.2SG

'Tie the ship to a tree.'

^{&#}x27;Having Visnu at the front, the gods ... went to the heavenly world.'

On secondary predicates in Vedic Sanskrit – Syntax and semantics

táṃ	tú	tvā	mấ	giráu	
DEM.ACC.SG.M	PART	ACC.2SG	NEG	mountain.LOC.SG.M	
sántam			udakám	antáśchaitsīt	
COP.PTCP.PRS.ACT.A	CC.SG.M		water NO	M.SG.N cut off.AOR.IN	JL3SG

^{&#}x27;As such a one [i.e. one that has tied the ship to a tree] the water shall not cut you off while you are on the mountain.'

In the next example, the demonstrative $t\tilde{a}m$ takes up the nominal predicate $\bar{a}s\tilde{i}h$ 'request' from the preceding sentence adding new information on how to preced further with it:

tấm	$m\bar{a}$	yajñé	'vakalpaya
DEM.ACC.SG.F	PERS.ACC.1SG	sacrifice.LOC.SG.M	apply.IMP.2SG

^{&#}x27;As such a one apply me during the sacrifice.'

And lastly, *satyá*- 'true' in the next example, denotes the nature of the request that is sent to the gods. While throwing the sacrificial strew into the fire, the sacrificer is required to speak a certain formula containing this word, if he wants his request to be accepted. The adjective *satyá*- is repeated in the next clause, possibly emphasizing its importance in the formula:

(30) MS 14,3(7)				
sấ	me	<u>satyā́</u> sīr		
[sấ	me	<u>satyā́</u>		ấśīr]
DEM.NOM.SG.F	PERS.DAT.2SG	true.NOM	M.SG.F	request.NOM.SG.F
devấn	gamyād	íti	prastaré	
god.ACC.PL.M	go.aor.opt.3sg	QUOT	strew.LO	C.SG.M
prahriyámāṇe		vadet		

forwards_drag.PTCP.PRS.MID.LOC.SG.M speak.PRS.OPT.3SG

"This request, as (one that becomes) true, may go to the gods', he shall say when the (sacrificial) strew is thrown (into the fire)."

(30) MS I 4 5(7)

_

²⁸ Cp. Amano (2009): "Möchte die Bitte für mich doch als eine, die wahr wird, zu den Göttern gehen [usw.]', soll er sprechen, wenn die Opferstreu (ins Feuer) geworfen wird."

satyấ ẳ	vấ	etád	āśíṣaṃ	devấn
true.ACC.SG.F	PART	in_this_manner	request.ACC.SG.F	god.ACC.PL.M
gamayitvấtha		váram	vṛṇīta	
[gamayitvấ	átha	váram	vṛnīta]	
go.CVB	PART	gift.ACC.SG.N	choose.PRS.OPT.MI	D.3sg

^{&#}x27;After having let go in this manner the request, **as (one that becomes) true**, to the gods, he shall then choose a gift.'²⁹

4.3.2 Edge-placement

Regarding the position of depictives in relation to the matrix verb, Lowe's (2015) analysis of the *Rigveda*, as described in the preceding section, has shown that there is in general no significant number difference between present participles that precede and those that follow the verb, if counting depictives and attributes together. A more complex picture emerged, after he split the depictive participles into their various semantic functions (p. 195-196): Depending on their meaning, some of them tend to precede the matrix verb (cause, means, concession) or to follow it (purpose, result). The explanation he suggests is based on discourse pragmatics:

"The expression of cause or means by its very nature tends to involve reference to eventualities that temporally precede that of the matrix verb, while the expression of purpose or result, conversely, involve reference to eventualities that are temporally subsequent to that of the matrix verb. The tendencies in relative ordering therefore reflect the logical order of events." (Lowe 2015: 196)

While he gives only information about the position of present participles relative to the matrix verb and not with regard to sentence boundaries, his observation can still be connected with another important observation about the word order of compounded depictives in the *Rigveda* recently made by Scarlata & Widmer (*subm.*, 3.3):

"As a matter of fact, peripheral placement of compounds, be it clause/verse-inital or clause/verse-final, undisputably displays some affinity for depictive readings."

⁹ Cp. Amano (2009): "Nachdem er auf diese Weise die Bitte als eine, die wahr wird, hat zu den Göttern gehen lassen, soll er danach eine Gabe nach Wahl wählen."

In other words: compounded secondary predicates show an affinity to appear on either the right or the left edge of the sentence, in the former case separated from their controller by the main verb, cp. the following example taken from Scarlata & Widmer (to appear, p. 3) with supéśas- 'well-ornamented' in sentence-initial position:

(31)						
supésaso	am		mā́va			sṛjanty
[supésas	am		mā		áva	sṛjanti]
having_	good_ornaments.AC	C.SG.M	PERS.ACC	c.1sg	LP	send.PRS.3PL
ástaṃ	gávāṁ	sahásrai		ruśámās	o	agne
home	cow.GEN.PL.F	thousand	.INS.PL.N	Ruśama.	NOM.PL.M	Agni.voc.sg.m
'The Ru	śamas send me hon	ne well-or	namented	with thou	sands of c	ows, o Agni.' (RV
5,30,13a	b, Jamison & Brere	ton 2014)				

Since Scarlata and Widmer as of yet have not tested their hypothesis on a larger corpus and have anyway taken into consideration only Rigvedic compounds, I will in the following apply this hypothesis to our own corpus, beginning with the *Rigveda*. While doing this, I take the clause as the relevant domain, though, since some verses contain more than one clause (with more than one finite verb in the same verse, e.g. RV 1,36,8cd; 1,52,14cd; 2,14,2cd; cp. also the examples below). My analysis yields the following four results:

1. Edge-placement is frequently found in our *Rigveda* corpus. There are 32 sentences where the secondary predicate is positioned on the right edge of the sentence, and 18 where it occurs on the left edge, and 2 with both positions in the same sentence (RV 1,58,4; 2,7,4). Thus, the sentence-final position seems to be the preferred position. Cp. the following two examples with sentence-initial and sentence-final position of the depictive:

(32) sentence-initial position:

bíbhrad	drāpíṃ	hiraṇyáyaṃ
wear.PTCP.PRS.ACT.	NOM.SG.M coat.ACC.SG.M	golden.ACC.SG.M
váruņo	vasta	nirņíjam
Varuṇa.NOM.SG.M	don.PRS.MID.3SG	cloak.ACC.SG.F

^{&#}x27;Wearing a golden mantle, Varuṇa dons his cloak.' (RV 1,25,13ab, Jamison & Brereton 2014, cp. also 1,35,2.10; 1,48,5; 1,50,11; 1,60,5, etc.)

(33) sentence-final position:

táva vájraś cikite

PERS.GEN.2SG mace.NOM.SG.M be visible.PRF.MID.3SG

bāhvór hitáḥ

arm.LOC.DU.M put.PPP.NOM.SG.M

'Your mace has become visible, **placed into (your) arms**.' (RV 1,51,7c, Jamison & Brereton 2014; cp. also 1,3,4; 1,22,18; 1,23,16; 1,25,16; 1,29,5; 1,35,5, etc.)

2. In the vast majority of the cases, the secondary predicates showing edge-placement are part of a complex secondary predicate, where the secondary predicate is in most cases a participle accompanied by one or more additional constituents as in the two examples just cited: On the right edge, there are 6 instances with a simple depictive and 24 with a complex depictive; on the left edge, there are 4 simple depictives against 14 complex ones. Therefore, it is very probable that heaviness is a factor in the preference for edge-placement (on the role of heaviness in Vedic word order also Reinöhl 2020). The following two examples show simple depictives in sentence-initial and sentence-final position:

(34) sentence-initial:

éko anyác cakṛṣe

alone.NOM.SG.M other.ACC.SG.N do.PRF.MID.3SG

víśvam ānuṣák all.ACC.SG.N in_due_order

'You **alone** have done everything else in due order.' (RV 1,52,14d, Jamison & Brereton 2014; cp. also 1,47,8a; 1,49,4a)

(35) sentence-final:

bhúvat kánve vŕsā

COP.AOR.INJ.3SG Kanva.LOC.SG.M bull.NOM.SG.M

dyumny **áhutaḥ**

brilliant.NOM.SG.M bepour.PPP.NOM.SG.M

'The bull [i.e. Agni] at Kaṇva's side (becomes) brilliant **when bepoured**.' (RV 1,36,8c; cp. also 1,24,12c; 1,33,13d; 2,1,1d; 2,1,14d)

Although edge placement is not impossible, single depictives are preferably found sentence-medial, as in

On secondary predicates in Vedic Sanskrit - Syntax and semantics

(36)

śrnvántam índram

hear.PTCP.PRS.ACT.ACC.SG.M Indra.ACC.SG.M maháyann abhí ṣṭuhi

exalt.PTCP.PRS.ACT.NOM.SG.M LP praise.IMP.2SG

Exalting (him), praise Indra as he listens.' (RV 1,54,2b, Jamison & Brereton 2014; cp. also 2,2,6ab; 2,3,3a; 2,10,1; 2,12,1a; etc.)

Still, since complex secondary predicates are especially common in the *Rigveda*, more so in the first book than the second, it is possible that our data is somewhat skewed, especially in light of the fact that we only collected sentences with participles. This analysis therefore needs ultimately to be tested against an even larger corpus in order to unambiguously show the distribution of simple and complex secondary predicates. As for now, edge-placement seems to be preferred by complex secondary predicates in the Rigveda while simple ones may occur in all positions.

3. There mostly appears to be no direct relation between word class and syntactic position. This can be illustrated by the following two examples, where the same state of affairs, V_r tra lying dead on the ground, is expressed by an adjective $(upapr\hat{k})$ and a ta-form $(vy\hat{a}stah)$ respectively. Both depictives are positioned after the matrix verb:

(37)

skándhāṃsīvakúliśenāvívṛkṇā[skándhāṃsiivakúliśenavívṛkṇā]log.NOM.PL.NPARTaxe.INS.SG.Mhewn.NOM.PL.N

áhiḥ <u>śayata</u>

serpent.NOM.SG.M lie.PRS.SBJV.MID.3SG

upapfk pṛthivyấḥ

being closely aligned to.NOM.SG.M earth.GEN.SG.F

'Like logs hewn apart by an axe, the serpent <u>would lie</u>, **embracing the earth [/soaking the earth (with his blood)]**.' (RV 1,32,5cd, Jamison & Brereton 2014)

(38)

vṛṣṇo vádhriḥ pratimānam steer.NOM.SG.M emasculate.NOM.SG.N measure.NOM.SG.N

búbhūṣan **purutrá**COP.PTCP.DESID.NOM.SG.M in_many_places
vrtró aśavad vvàstah

Vrtra.NOM.SG.M lie.IMPF.3SG apart_fling.PPP.NOM.SG.M

Emphatic pronouns used as participant-oriented adjuncts are the only forms with a fixed syntactic position in our corpus: they always stand sentence-initially, probably due to information structure (cp. exx. [28], [29] and [74], also section 5.8).

4. So far we have concentrated on cases where the controller is identical with the subject of the sentence, which are by far the majority (see also 4.2 above). However, the tendency for edge-placement seems to extend also to those instances where the secondary predicate is not controlled by the subject but by another argument or adjunct, as the following two examples with accusative and dative and the respective depictive in clause-final position show:

(39) controller in the accusative:

tvám <u>etáñ janarájño dvír dáśa</u>
PERS.NOM.2SG DEM.ACC.PL.M folk_king.ACC.PL.M two.ACC.PL.M ten

abandhúnā suśrávas**opajagmúṣaḥ**

[abandhúnāsuśrávasāupajagmúṣaḥ]without_allies.INS.SG.MSuśravas.INS.SG.Mtowards_come.

PTCP.PRF.ACT.ACC.PL.M

(40) controller in the dative:

<u>tásmā</u> etám bharata **tadvaśáyam**DEM.DAT.SG,M DEM.ACC.SG,M bring,IMP.2PL this desiring,DAT.SG,M

'<u>To him</u> bring this (soma) since he desires it.' (RV 2,14,2c, Jamison & Brereton 2014)

^{&#}x27;A steer who tried to be the measure of a bull, Vrtra <u>lay there</u>, **flung apart in many places**.' (RV 1.32.7cd. Jamison & Brereton 2014)

^{&#}x27;You, together with Suśravas without (his) allies, (overcame) those twenty kings of the peoples, who had come close.' (RV 1,53,9ab)

Still, adjacency between controller and depictive in sentence-medial position is also attested, cp. the following example, already discussed as ex. (16) above:

(41)váh śáśvato máhv éno REL.NOM.SG.M continual.ACC.PL.M great.ACC.SG.N sin.ACC.SG.N dádhānān ámanyamānāñ commit.PTCP.PRS.MID.ACC.PL.M not think.PTCP.PRS.MID.ACC.PL.M chárvā iaghấna kill.prf.3sg arrow.INS.SG.M

To sum up, our material has confirmed the hypothesis of Scarlata & Widmer (*subm.*) regarding the tendency for edge-placement of compounded depictives in our own corpus containing compounded and non-compounded depictives. The second group with a tendency for edge-placement consists of participles with an additional constituent. I have further enlarged this hypothesis by suggesting a syntactic distribution based on heaviness. Note that while the examples given here do not exactly fit the distribution suggested by Lowe (2015: 196), this may be due to the fact that he only took present participles into consideration, while our corpus also encompasses other word classes.

As has already been mentioned above, in Vedic prose, edge-placement occurs much rarer. While the position on the left edge may be due to information structure (cp. exx. [27] - [30] above), this explanation does not hold for the right edge position. Still, though attested only rarely, this position is also attested, cp.

(42)bhŕgavo ... ápnavāno ètám hv Apnavāna.NOM.SG.M Bhrgu.NOM.PL.M DEM.ACC.SG.M PART vyárocayan citrám vánesu let shine.IMPF.3PL wood.LOC.PL.M bright.ACC.SG.M vihhvàm viśé-viśā íti every_village.LOC.SG.M omnipresent.ACC.SG.M OUOT

^{&#}x27;Who has killed with (his) arrow all those who continually commit great sin without thinking' (RV 2,12,10ab)

^{&#}x27;... because Apnavāna and the Bhrgus made this one [i.e. Agni] shine, **bright in the woods** (and) visible in every village.' (MS I 5,5(2), cp. also MS I 4,12(5) with 2 depictives [áskannam ávikṣubdham] in sentence-final position)

The fact that this sentence contains a complex depictive may be an indicator that morphological and/or semantic heaviness may again be the determining factor.

4.3.3 Word order of complex secondary predicates

If the secondary predicate has its own dependent constituent – mostly an argument or adjunct –, this element normally immediately precedes the secondary predicate, cp.

(43) with accusative:

agnim upadisann uvāca fire.ACC.SG.M towards_point.PTCP.PRS.ACT.NOM.SG.M speak.PRF.3SG '(He) spoke while pointing towards the fire' (JB 1.22-25)

(44) with locative:

táṃ tú tvā mắ

DEM.ACC.SG.M PART ACC.2SG NEG

piráu sántam

mountain.LOC.SG.M COP.PTCP.PRS.ACT.ACC.SG.M

udakám antáschaitsīt
water.NOM.SG.N cut off.AOR.INJ.3SG

'As such a one, the water shall not cut you off **while you are** on the mountain.' (ŚB 1,8,1,6)

Even in the *Rigveda*, placement of additional constituents before and adjacent to secondary predicates is very frequently found (cp. the examples in 4.4.2).

Single elements like the vocative or one (or several) other unaccented elements in the Wackernagel position sometimes appear within complex secondary predicates, cp. the following example:

(45)

īļitó <u>agne</u> **mánasā** ... deván invoke.ppp.nom.sg.m Agni.voc.sg.m mind.ins.sg.n god.acc.pl.m yakşi ...

sacrifice.IMP.2SG

'Solemnly invoked by (our) mind, o Agni, ... sacrifice to the gods...' (RV 2,3,3ab, Jamison & Brereton 2014; cp. also RV 1,33,3c [coṣkūyámāṇa indra bhūri vāmám]; MS I 4,11(3) [yásya ha tv evá bruvānáḥ], JB 1,22-25 [mama satyam iva vadatah])

In these cases, either the depictive or the additional constituent might have been topicalized. It has to be emphasized, though, that this kind of word order is less frequently attested than the insertion of elements between depictive and controller. In our whole corpus, there seems to be a greater tendency for adjacent placement of depictive and additional constituent than for that of depictive and controller.

4.4 Word classes and construction types

4.4.1 Word classes

There is a great variety in the word classes that can be used as secondary predicates. Since they are participant-oriented adjuncts, property-denoting nominals are predominant with participles being by far the most common type in our corpus (192 examples), followed by other property-denoting nominals, which consist mostly of adjectives (91 examples). The relative frequency of the individual participle stems used as depictives stands in a close relation to their overall frequency in our corpus irrespective of their usages (cp. also the numbers given in Lowe 2015): Most examples in our corpus belong to present active participles (92 examples), followed by taforms (41 examples), present middle participles (27 examples) and perfect active participles (24 examples).³⁰

Among the non-participial forms used as depictives, compounded adjectives form the most frequent type. They can be differentiated into the following sub-groups:

- exocentric compounds, i.e. Bahuvrīhis (e.g. dóha-kāma- 'having the wish to be milked', MS I 4,5(6), cp. ex. [26]; vísnu-mukha- 'having Visnu in front', MS I 4,7(2), cp. ex. [1]; vájra-bāhu- 'having a mace in (his) arms', RV 2,12,12)

ple (RV 2,4,2), aorist middle participle (RV 1,32,8; 1,55,6; 2,2,6.8; 2,11,9), future active participle (MS I 4,5(3); I 4,6(1)), and future middle participle (MS I 4,5(1); I

4,14(1)).

Other participial stems are only very rarely attested as secondary predicates: perfect middle participle (RV 1,6,7; 1,12,13; 1,24,4; 1,33,13; 1,46,13), aorist active partici-

- governing compounds with a noun as first element (e.g. *vắta-jūta-* 'urged on by the wind [*vắta-*]', RV 1,58,4; *barhiṣád-* 'sitting [*sad*] on the Barhis [i.e. the ritual grass]', RV 2,3,3, cp. ex. [12])
- the first constituent is a local particle (e.g. $upa-p\acute{r}c$ 'being closely aligned to', RV 1,32,5, cp. ex. [37]) or the negative particle a(n)- (e.g. $an-\bar{a}nud\acute{a}$ -'unrelenting', RV 1,53,8)³¹

Examples for simple adjectives denoting a physical (or mental) state are $\pm succession$ simple adjectives denoting a physical (or mental) state are $\pm succession$ simple adjectives denoting a physical (RV 2,8,4, cp. ex. [42]), and $\pm succession$ arvance (RV 1,34,12; 1,35,10; 1,47,8, cp. ex. [79]), $\pm succession$ simple adjectives denoting a physical (RV 2,8,4, cp. ex. [42]), etc.

Nouns and pronouns are rarely attested in this function, but also possible, cp. the following examples:

(46)					
sa		hovāca		yaśa	ity
[sa		ha	uvāca	yaśaḥ	iti]
DEM.NC	M.SG.M	PART	say.PRF.3SG	glory.ACC.SG.N	QUOT
eva	samrāḍ		aham	agnihotram	
PART	ruler.vc	C.SG.M	PERS.NOM.1SG	Agnihotra.ACC.SC	3.N
juhomi					

sacrifice.PRS.1SG

'He said, "As glory, o ruler, I sacrifice the Agnihotra [i.e.oblation to Agni].' (JB 1,22-25; cp. also RV 1,25,17 [hótar- 'priest']; MS I 4,7(3) [grhá-pati- 'domestic lord', cp. ex. (22)]; etc.)

(47)
sắsy
ukthyàḥ
[sá asi ukthyàḥ]
DEM.NOM.SG.M COP.PRS.2.SG praiseworthy.NOM.SG.M

'**As such a one** you are worthy of hymns.' (RV 2,13,2d; repeated in 2,13,3-10.12; cp. also RV 1,49,4c; 1,60,5a; ŚB 4,1,5,10; and ex. [28] and [29] above)

_

¹ Cp. Himmelmann & Schultze-Berndt (2005: 53) on German *ungefrühstückt* 'not having had breakfast' which can only be used as a depictive, in contrast to its positive counterpart which cannot be used as an adjunct at all. There is no evidence for a contrast like that in Vedic, i.e. positive and negated forms may appear as depictives or attributes respectively.

4.4.2 Complex secondary predicates

As mentioned several times already, secondary predicates may have an additional constituent (nominal form, adverb or particle), thus forming a complex secondary predicate. In general, they occur more frequently in the *Rigveda* than in the prose texts (in the first book of the *Rigveda*, this kind of construction seems actually to be the rule rather than the exception). If the additional element consists of a nominal, the accusative is the case most frequently attested. This is to be expected in light of the fact that many depictives are participles. If these are based on transitive verbs, the accusative is the direct object, if the underlying verb is intransitive, the accusative is one of direction or extension (if there is a local particle present, this will appear univerbated with the participle). Finally, the accusative may be used as predicative complement. Cp. the following four examples:

(48) accusative as direct object:

vaiśvānaró <u>dásyum</u> agnír

Vaiśvānara.NOM.SG.M demon.ACC.SG.M Agni.NOM.SG.M

jaghanvåm ádhūnot kåṣṭhāh ... kill.ptcp.prf.act.nom.sg.m shake.impf.3sg barrier.acc.pl.f

(49) accusative of direction:

agnimupadiśannuvācafire.ACC.SG.Mtowards_point.PTCP.PRS.ACT.NOM.SG.Msay.PRF.3SG

(50) accusative of extension:

<u>tisráḥ</u>	pṛthivī́r	upári	pravá	
three.ACC.PL.F	earth.ACC.PL.F	LP	floating.NO	M.DU.M
divó	nấkaṃ	rakșethe	d	yúbhir
heaven.GEN.SG.M	vault.ACC.SG.M	guard.PR	s.mid.2du d	ay.INS.PL.M
aktúbhir	hitám			
night.INS.PL.M	put.PPP.ACC.SG.M			

^{&#}x27;Agni Vaiśvānara, **having smashed the Dasyu**, shook the wooden barriers ...' (RV 1,59,6cd; also RV 1,1,7; 1,2,7; 1,6,3; etc.)

^{&#}x27;Pointing towards the fire he said' (JB 1,22-25 [5 other attestations in the same passage]; cp. also RV 1,11,6; 2,3,1)

'Floating above the three earths, you guard the fixed vault of heaven, through the days, through the nights.' (RV 1,34,8cd, Jamison & Brereton 2014; cp. also RV 1,36,7; 1,50,11; 2,2,4; possibly 2,2,8)

(51) accusative as predicative complement:

ŚB 4,1,3,1; 4,1,5,2; RV 1,33,4)

tám		<u>anarthyam</u>	mányamānāḥ		
DEM.ACC.	SG.M	worthless.ACC.SG.M	think.PTCP.PRS.MID	.NOM.PL.M	
kumārá		loṣṭáir	vyàpikṣann	íti	
boy.NOM.	PL.M	clod_of_earth.INS.PL.M	throw_at.IMPF.3PL	QUOT	
'The boys, considering him worthless , threw clods of earth at him.' (ŚB 4,1,5,5; cp. a					

While all these case functions are of course dependent on the underlying verbs and not the depictive construction itself, these examples are nevertheless included here in order to show the possible complex structures found in Vedic depictives. Another frequently attested case form used in this way is the instrumental (only in the *Rigveda*): it functions mostly as an instrumental of means (cp. ex. [5], also RV 1,9.9; 1,12,11; 1,50,7; etc.). Much rarer are other usages of the instrumental, e.g. sociative (cp. ex. [71], also RV 1,6,7; 1,35,2) and agentive (RV 1,32,11; 1,53,8, cp. also ex. [87]). The locative as an additional adjunct mostly denotes the location of the action (cp. ex. [28]: also RV 1,22,20; 1,24,13; 1,47,3; 1,47,6; 1,51,3; 1,55,6; 2,2,4; MS I 5,5(2)), for the locative indicating a goal cp. ex. (33) (also RV 2,3,1; possibly 1,4,5). The dative in this function is attested only in the Rigveda and may either indicate an indirect object (RV 1,47,8; 1,50,13; 1,52,8; 1,55,6) or be more loosely connected to the matrix verb, e.g., as a dativus finalis (RV 1,2,3c [sómapītaye]; 1,44,6 [jīváse]). The ablative indicating the source of the action occurs four times as the adjunct of a secondary predicate (MS I 4.8(3)) [āhavanīvāt]; JB 1,73 [mukhāt]; RV 1,11,5; 1,24,4). A possessive genitive is attested only in MS I 4,11(3) (vásva).

Besides nominals, a secondary predicate may also be combined with an adverb or a particle. Most adverbs occuring in this construction have a temporal or local meaning, like *adyá* 'today' (RV 1,50,11), *sadyáḥ* 'at once, quickly' (RV 1,5,6), *uccá* 'above' (RV 1,24,10), *samānátra* 'at the same place' (MS I 4,12(3)). Particles accompanying secondary predicates are,

e.g., $ev\acute{a}m$ 'thus, in this manner', ³² and $n\acute{a}$ or iva 'as, like', introducing a correlative phrase, cp.

(52) with ná (only RV):

thought.INS.PL.F

táṃ	$tv\bar{a}$	vayám		pátim
DEM.ACC.SG.M	PERS.ACC.2SG	PERS.NO	M.1PL	lord.ACC.SG.M
agne	rayīṇấm	prá	śaṃsām	o
Agni.VOC.SG.M	wealth.GEN.PL.M	LP	praise.PF	RS.1PL
matíbhir	gótamāsaḥ	<u>āśúm</u>		<u>ná</u>

Gotama.NOM.PL.M swift.ACC.SG.M

vājambharám marjáyantah

prize-bearing.ACC.SG.M groom.PTCP.PRS.ACT.NOM.PL.M

'It is you, Agni, that we Gotamas celebrate with our thoughts as lord of wealth, **grooming** you <u>like a swift, prize-bearing (horse)</u>.' (RV 1,60,5abc, Jamison & Brereton 2014; cp. also RV 2,2,4; with *iva* cp. RV 1,22,20; 1,28,7; JB 1,22-,25 [*satyam iva vadatah*], 1,85; SB 1,8,1,7; 1,8,1,11; 4,1,3,1)

like

4.5 Morphological marking

Typologically, delimiting secondary predicates on formal grounds from other syntactic functions may be achieved not only by word order but also by two other formal means: morphology (e.g. special affixes) and/or case agreement. Concerning morphology, we have seen already that there is no morphological marking which would be restricted to secondary predicates: participles and other nominal formations contain their derivational and inflectional morphology irrespective of their usage as attributes, appositions, depictives, etc.³³

Case agreement between a secondary predicate and the element it is predicated of is a wide-spread and typical formal feature of depictives (cp. in general Himmelmann & Schultze-Berndt 2005: 62-64). Thus, while word order and morphological features may vary considerably, case agreement between a secondary predicate and its controller is generally to be expected.

_

Mostly in the phrase *evaṃ vidvān* 'knowing thus' (perfect active particple of the root *vid* 'find; know', referring to knowledge of the sacrificial ritual), cp. MS I 5,7(4); I 5,8(2); I 5,9(2); JB 1,11; 1,12-13; 1,22-25; 1,28.

An exception from this seem to be directional adjectives in -añc- which in Indo-Iranian are mostly used as depictives. Still, there are also some cases of clearly attributive function attested in the *Rigveda* (Cantera 2005: 109-119, esp. 115-116).

An apparent violation of this agreement principle can be found in the following sentence – an otherwise isolated example –, where the depictive appears in the nominative plural, while the matrix verb is a first person singular (without overt controller). Here, the speaker obviously considers himself as part of a larger group performing the action expressed by the depictive vājayántah 'seeking victory', i.e. only the context links depictive and matrix verb, cp.

```
(53)
á
                           índram
                                             krívim
                                                                vathā
                           Indra.ACC.SG.M
                                             red.ACC.SG.M
                                                                like
LP
         PERS.DAT.1PL
vājavántah
                                    śatákratum
seek_victory.PTCP.PRS.ACT.NOM.PL.M
                                    of a hundred resolves.ACC.SG.M
mámhistham
                                             índubhih
bounteous.ACC.SG.M
                           pour.PRS.MID.1SG drop.INS.PL.M
```

'As (we) seek the victory prize for you, with (soma) drops I sprinkle Indra like a bloodred (horse) - most bounteous (Indra) of a hundred resolves.' (RV 1,30,1, Jamison & Brereton 2014)34

There is another, recurring construction that on first sight also seems to violate the agreement principle, i.e. that of nominative case forms alongside vocatives. It is of great interest here, since it provides a formal clue for identifying secondary predicates. It will be discussed in the next section.

4.5.1 A special case: nominative beside matrix verb in the second person

A nominal expression in the nominative case alongside a co-referential noun in the vocative has unambiguously to be analysed as secondary predicate (cp. also Casaretto & Reinöhl, subm., and Scarlata & Widmer, subm., 3.2): while an attribute or apposition would show agreement and appear likewise in the vocative, a secondary predicate, if it is co-referential, has to stand in the nominative. The underlying reason for this is that the vocative is the only case that is syntactically not part of the clause. Therefore, it can never be

Lack of agreement with a controller is also found in strong free adjuncts. In Vedic, these would be absolute constructions in the locative case. Since these forms are easily distinguished from secondary predicates on formal grounds, they are not discussed here, but cp. on this Casaretto & Reinöhl (subm.).

used for secondary predicates which are by definition an additional predication *within* the clause. Cp. the following example:

(54)á tū́ kauśika na indra Indra.voc.sg.m of Kuśika.VOC.SG.M LP PART our mandasānáh sutám find_exhilaration.PTCP.PRS.MID.NOM.SG.M pressed.ACC.SG.M piba drink IMP 2sG

The nominative *mandasānáḥ* 'finding exhilaration' is a depictive without an overt controller, thus being an exception from the normal state of affairs where depictives are obligatorily controlled by an argument (e.g., Croft 2012: 344). The only formal trace of the controller here is encoded in the verbal ending. The vocative *indra* cannot function as controller for *mandasānáḥ*, it is just a co-referential element. The second vocative, *kauśika* 'of Kuśika', on the other hand, is an apposition to it. Although examples like this are not very frequent overall in our corpus, they are still important insofar as they provide unambiguous evidence for the existence of secondary predicates in Vedic.³⁵

However, if the matrix verb consists of the copula, things may become difficult again, cp. the following example:

(55)

suśáṃso bodhi gṛṇaté

good_to_laud.NOM.SG.M COP.IMP.2SG sing.PTCP.PRS.ACT.DAT.SG.M

yaviṣṭhya mádhujihvaḥ svàhutaḥ

youngest.VOC.SG.M honey-tongued.NOM.SG.M well-libated.NOM.SG.M

'Be one who is good for the singer to laud, o youngest one, one whose tongue is honey when well-libated.' (RV 1,44,6ab, Jamison & Brereton 2014)

_

^{&#}x27;<u>O Indra, (god) of Kuśika,</u> **finding exhilaration**, drink our pressed soma.' (RV 1,10,11ab, Jamison & Brereton 2014)

³⁵ Cp. RV 1,3,5.6; 1,12,3; 1,13,4; 1,24,14; 1,30,14; 1,31,8; 1,43,9; 1,44,12; 1,46,13; 1,50,7; 1,52,8; 2,3,3; 2,6,7; 2,7,4. Since the vocative is not always encoded differently from the nominative, e.g. not in the dual and plural, there are more possible, albeit uncertain cases, which have not been listed here.

This clause contains a vocative (*yaviṣṭḥya*), the verb form *bodhi* and several nominal elements, whose relations to each other remain ambiguous. It is impossible to clearly differentiate here between nominal predicates, appositions and secondary predicates. The translation by Jamison & Brereton suggests that *suśáṃṣaḥ* is a nominal predicate, *mádhujihvaḥ* an apposition or a nominal predicate and *svàhutaḥ* a secondary predicate. Other relations are possible, though, also depending on the exact meaning of *bodhi* in this verse. The existence of a vocative alone is therefore not a hard criterion in itself, and other factors like the semantics of the matrix verb may play a role, too.

Still, the constellation of a nominative form alongside a matrix verb in the second person is not entirely dependent on the existence of a co-referential vocative in order to suggest the interpretation of the nominal form as secondary predicate. Rather, the following hypothesis can be added: If the matrix verb appears in the second person (not the copula) and there is no overtly expressed agent like a pronoun in the second person, an accompanying form in the nominative case will very likely be a secondary predicate.³⁶ Especially in the *Rigveda*, this constellation of nominative case form and verb in the second person is well attested, cp. the following example:

(56)			
ketúṃ	kṛṇvánn		aketáve
beacon.ACC.SG.M	make.PTCP.PRS.ACT.	NOM.SG.M	without_beacon.DAT.SG.M
péśo	maryā	apeśáse	sám
ornament.ACC.SG.N	man.VOC.PL.M	without_ornament.I	DAT.SG.M LP
uṣádbhir	<u>ajāyathāh</u>		
dawn.INS.PL.F	$be_born.{\sf IMPF.MID.2}$	SG	
'You young men-	making a beacon for	or that without beac	on and an ornament for tha

'You young men—**making** a beacon for that without beacon and an ornament for that without ornament, <u>you [=Agni] were born</u> together with the dawns.' (RV 1,6,3, Jamison & Brereton 2014; cp. also 1,27,3 in ex. [81] and 1,4,5; 1,5,10; 1,6,7; 1,12,11, etc.)³⁷

The observation made at the beginning of this section can therefore be rephrased insofar as the constellation of a nominative case form alongside a matrix verb in the second person without an overt agent seems to be a clear

-

Note that straightforward examples for this include adjectives and participles. Nouns like devá- 'god' are in these constructions still not easily distinguished from appositions, as has been suggested by an anonymous reviewer.

Note that the vocative, maryāḥ 'men', here is not co-referential with kṛṇván 'making', since the participle stands in the singular and clearly refers to Agni.

formal indicator for the presence of a secondary predicate, with or without an additional co-referential vocative.

5 Semantic range

Concerning the semantic range of depictives there are already several comprehensive descriptions available. A cross-linguistic perspective is given in Himmelmann & Schultze-Berndt (2005: 27-50) and Van der Auwera & Malchukov (2005: 393-421, in the same volume). The semantic range of participles used as secondary predicates in the *Rigveda* is discussed in detail in Lowe (2015: 166-192) and that of Rigvedic compounds in Scarlata & Widmer (*subm.*, 6). In the following sections, I will therefore – where possible – concentrate mostly on our prose corpus and include Rigvedic material only if needed. The material will be orderd according to the categories suggested by Himmelmann & Schultze-Berndt (2005), which closely overlap with those of the other researchers.³⁸

Before we start, however, we need to take another look at the difference between participant- and event-orientation. For this, let's recapitulate our definition for depictives given at the beginning of this paper: they typically encode a physical or mental state (often an unusual or otherwise marked one, cp. ádugdha- 'unmilked' in ex. [24]) that overlaps temporally with the action encoded by the main predicate. Thus, while depictives typically denote properties of referents, adverbials denote properties of actions and events, cp. he ate the fish raw vs. he ate the fish quickly (examples taken from Riaubienė 2015: 7). Stative expressions for physical or mental conditions are thought of as the prototypical depictive insofar as they are purely participant-oriented. Heberlein (1996: 358f., 362f.) discusses this point using Latin pauper 'poor' in is pauper mortuus est 'He has died poor' (~ Sen. ep. 115,14). In this sentence, *pauper* only conveys information about the state the referent was in while dying. Dynamic adjectives like *ferox* 'wild' and *audax* 'bold', on the other hand, also convey some information about the way the verbal action itself is conducted, therefore being at least partly event-oriented and

_

On Latin cp. Burkard & Schauer (2012: 354-359). Their survey includes expressions for physical and emotional states, location, time, and function/role.

showing a closer semantic relation to adverbials.³⁹ In sentences like *he left the room angry*, already discussed in section 1, the state of being angry, besides being tied to some event that triggered the action of leaving and not necessarily a permanent mental state of the referent (stage-level oriented!), may well have an impact on the way the referent leaves, e.g., hastily, by banging doors, etc., thus adding information about the verbal action itself. Depending on the lexical meaning and the semantic context of a depictive there is no clear-cut demarcation between both kinds of orientation.

Additionally, event-oriented adjuncts that are typically analysed as adverbials may also have a varying degree of participant orientation. They are differently encoded in languages on the formal level: either as adverbials or as depictives. In Vedic Sanskrit, a lot of concepts that are encoded as adverbials in other languages are expressed by nominal formations showing agreement with a controller and predominantly participant orientation. Still, except for the expressions for life stage (5.6), quantification/order (5.7), and emphatic pronouns (5.8), which are purely participant-oriented, all other concepts discussed below are encoded by adjuncts that convey information about the referent as well as about the way the event encoded by the main verb takes place. The best way to account for this is to assume that participant and event orientation form a continuum with a large part of the depictives discussed in this section falling somewhere in the middle between them (cp. on this also Himmelmann & Schultze-Berndt 2005: 7-15, esp. 14, Cantera 2005: 103-106, Lowe 2015: 86²).

The reason why purely participant-oriented examples are not very frequent in Vedic Sanskrit lies in the fact that the bulk of secondary predicates consists of participles, and these – being deverbal formations – normally encode events rather than states. This can be illustrated by the resultative ta/na-forms: although they are not participles in the strict sense – e.g., they are not built to a tense/aspect stem but directly to the root –, they always imply the action that has preceded the event expressed, ⁴⁰ cp. with sam-sirna-'having been broken' (sar^i 'crush'):

³⁹ Cp. also Heberlein (1996: 363), where he uses the scope of negation for distinguishing between "dynamic" depictives and adverbials in Latin.

⁴⁰ Cp. Lowe (2015), esp. pp. 301-302, on the relation of *ta*-forms and participles.

(57)

satredhāsaṃšīrṇaudDEM.NOM.SG.Minto_three_partsbreak.PPP.NOM.SG.MLP

evātisthat

[eva atiṣṭhat] PART stand.IMPF.3SG

Besides, most of the non-participles attested in Vedic Sanskrit encode states other than physical — or they add an additional element to the physical meaning, like posture or location, and this element may also convey information about the action itself. In the following sections, one recurring theme will therefore be the semantic proximity of depictives to event-oriented adjuncts.

5.1 Mental or emotional condition

Expressions for mental or emotional conditions vary in some languages between depictive and adverbial coding, as in *Claire left the room angry/angrily* (Himmelmann & Schultze-Berndt 2005: 30-31). The following Vedic examples submit to both participant- and event-oriented readings in that they give or at least imply information about the way the action encoded by the main verb is viewed:

(58)

āśişo vái **dóhakāmā**

request.NOM.PL.F PART having the wish to be milked.NOM.PL.F

yájamānam abhísarpanti

sacrifice.PTCP.PRS.MID.ACC.SG.M towards crawl.PRS.3PL

'Requests **having the wish to be milked** [=eagerly] crawl towards the sacrificer.' (MS I 4,5,(6))

(59)

índroyád ...dhṛṣámāṇoándhasāIndra.NOM.SG.Mwhenbe_bold.PTCP.PRS.MID.NOM.SG.Mstalk.INS.SG.N

bhinád valásya paridhín ...

split.prs.inj.3sg Vala.gen.sg.m barricade.acc.pl.f

'... when Indra, **emboldened** by the soma stalk, split the barricades of the Vala cave ...' (RV 1,52,5cd, Jamison & Brereton 2014, similarly RV 1,25,11b *cikitvấn* 'watchful')

^{&#}x27;This one [i.e. the first human], **having been broken** into three parts, stood up.' (JB 1,98-99)

5.2 Posture and configuration

Expressions for posture (e.g. *backwards*) and configuration (e.g. *in a circle*, cp. Himmelmann & Schultze-Berndt 2005: 31), while basically describing a feature of the participant, may also convey information about the action itself, especially if the referent coincides with the subject of the clause. The same holds for the following Vedic examples:

(60)

prāvabhrāivasarpantibent_forward.NOM.PL.Mlikego.PRS.3SG

(61)

sa tataḥ **parān**

DEM.NOM.SG.M since then facing away.NOM.SG.M

evātapat

[eva atapat]

PART shine.IMPF.3SG

5.3 Manner

Manner expressions also fall under the expressions where participant- end event-orientation are difficult to distinguish in many languages (Himmelmann & Schultze-Berndt 2005: 14, also Casaretto & Reinöhl, *subm.*, on RV 1,3,6), cp. the following examples:

(62)

sá enāṃ **chuktáḥ pútir**

DEM.NOM.SG.M DEM.ACC.PL.M acrid.NOM.SG.M rank.NOM.SG.M

abhívavau

towards_blow.PRF.3SG

'He [i.e. the decomposition smell] blew towards them [i.e. the gods] **acrid** (and) **rank**.' (ŚB 4,1,3,6)

^{&#}x27;Virtually **bent forward** they go (to the heavenly world).' (JB 1,85)

^{&#}x27;Since then he [i.e. the sun] has shone **facing away**.' (JB 1,87, cp. also RV 1,32,5 *upapŕk* being aligned to' [ex. (37)], 2,3,1 *pratyán* 'facing towards')

(3)

ápnavāno	hy	ètáṃ	bhŕgavo
Apnavāna.NOM.SG.M	M PART	DEM.ACC.SG.M	Bhrgu.NOM.PL.M
vyárocayan	váneșu	citrám	vibhvàm̈́
let_shine.IMPF.3PL	wood.LOC.PL.M	bright.ACC.SG.M	omnipresent.ACC.SG.M
viśé-viśā	íti		
every_village.LOC.S	G.M QUOT		

^{&#}x27;Because Apnavāna and the Bhṛgus made this one [i.e. Agni] shine, (being) bright in the woods (and) visible in every village.' (MS I 5,5(2); cp. also RV 2,7,4 [súci- 'blazing']; 2,8,4 [citrá- 'bright']; 2,12,10 [sáśvant- 'continual', cp. ex. (16)]; MS I 5,10(3) [syoná- 'pleasant'])

In Vedic, there seems to be a preference to express manner by participant-oriented adjuncts rather than by adverbs, cp. the discussion in Scarlata & Widmer (*subm.*, 6.1.4).⁴¹

5.4 Comparison

Secondary predicates may be accompanied by the particle *iva* 'as, like', introducing a comparison, cp.

(64)

sấ ha **píbdamān**evo</u>déyāya
[sấ ha **píbdamānā** <u>iva</u> udéyāya]

DEM.NOM.SG.F PART tread.PTCP.PRS.MID.NOM.SG.F like step_up.PRF.3SG

'She stepped up, <u>like</u> (somebody) **treading** (firmly) [out of a mixture of various milky fluids used during the sacrifice].' (ŚB 1,8,1,7; cp. also JB 1,85 prāvabhrā iva 'virtually bent forward' [ex. (60) above])

These comparative expressions are participant- and event-oriented at the same time, since they not only provide information about the participant, but also about the manner the action is performed (Himmelmann & Schultze-Berndt 2005: 33, cp. also their example *He eats his food like a horse*).

_

⁴¹ In Young Avestan, on the other hand, some depictives do not show agreement with their controller and are apparently in the early stages of a transition to event-oriented adjuncts, cp. Sommer (2017: 429-431).

5.5 Function and role

Adjuncts expressing a function or role may be marked differently across languages, e.g. by a special marker – cp. English as in They gave him the book as a present –, or by special affixes (Himmelmann & Schultze-Berndt 2005: 34). In Vedic, however, these expressions are not formally distinguished from other depictives, although nouns (with or without additional particles like iva) occur here somewhat more frequently than for expressing other states, cp.

(65)			
sá	tád	evá	prátiveśo
DEM.NOM.SG.M	DEM.ACC.SG.N	PART	neighbour.NOM.SG.M
níviviśe			
settle_down.PRF.M	MID.3SG		
'He then settled d	lown as neighbour .	(ŚB 4.1.5	.2)

(66)

aśvínau vấ idám bhisaivántau ha be physician.PTCP.PRS.ACT.NOM.DU.M Aśvin.NOM.DU.M PART here PART ceratuh

walk.prf.3DU

'The Aśvins [twin-gods] walked (around) here (and there), working as physicians.' (ŚB 4,1,5,8, cp. also 4,1,5,14)

Expressions for functions/roles are also attested referring to the patient of the clause (67) or to a sociative instrumental (68), cp.

(67)					
sa		hovāca		yaśa	ity
[sa		ha	uvāca	yaśaḥ	iti]
DEM.NO!	M.SG.M	PART	say.PRF.3SG	glory.ACC.SG.N	QUOT
eva	samrāḍ		aham	agnihotram	
PART	ruler.vo	OC.SG.M	PERS.NOM.1SG	Agnihotra.ACC.SC	i.N
juhomi					

sacrifice.PRS.1SG

^{&#}x27;He said, As glory, o ruler, I sacrifice the Agnihotra.' (JB 1,22-25, cp. also in the same passage and context satyam 'as truth', bhūyiṣṭham 'as most extensive', tejaḥ 'as radiance', arkāśvamedhau 'as ray of light and horse sacrifice')

On secondary predicates in Vedic Sanskrit - Syntax and semantics

(68)

ágne grhapate

Agni.VOC.SG.M grhapati.VOC.SG.M

sugrhapatír ahám

having a good domestic lord.NOM.SG.M PERS.NOM.1SG

tváyā **grhápatinā**

PERS.INS.2SG having a good_domestic_lord.INS.SG.M

bhūyā́sam sugrhapatís

COP.PREC.1SG having_a_good_domestic_lord.NOM.SG.M

tvám máyā **grhapatinā**

PERS.NOM.2SG PERS.INS.1SG having a good domestic lord.INS.SG.M

bhūyā íti

COP.AOR.SBJV.2SG QUOT
'Agni Grhapati (domestic lord), may I with you **as**

Again, in all these examples, participant- and event-orientation are difficult to separate from one another.

5.6 Life stage

Expressions for life stage, e.g. as a young girl, may be marked with a temporal or locative marker in some languages (Himmelmann & Schultze-Berndt 2005: 35). In Vedic, though, they have no special marking and are mostly encoded by *ta*-forms with resultative meaning, also by perfect active and medium participles, cp.

(69) ta-form:

yó **jātá** evá prathamó REL.NOM.SG.M be_born.PPP.NOM.SG.M PART first.NOM.SG.M

mánasvān devó devấn

wise.NOM.SG.M god.NOM.SG.M god.ACC.PL.M

krátunā paryábhūṣat

will.INS.SG.M take_care_of.IMPF.3SG

'Who, even when just **born**, was the foremost thinker, the god who by his own will tended to the gods.' (RV 2,12,1ab, Jamison & Brereton 2014; cp. also RV 1,5,6 *vṛddháḥ* 'grown up', RV 2,3,6 *ukṣité* 'grown up')

^{&#}x27;Agni Gṛhapati (domestic lord), may I with you **as domestic lord** become (someone) who has a good domestic lord. May you with me **as domestic lord** become (someone) who has a good domestic lord.' (MS I 4,7(3))

(70) perfect participle:

ágne	devấm	ihấ		vaha
[ágne	devấn	ihá	á	vaha]
Agni.voc.sg.m	god.ACC.PL.M	here	LP	drive.IMP.2SG
jajñānó		vṛktábarhiṣe		
be_born.PTCP.PRF.MID.NOM.SG.M		prepari	ing_the_b	arhiș.DAT.SG.M

^{&#}x27;Agni, convey the gods here, **as soon as you are born**, for the man who has twisted the ritual grass.' (RV 1,12,3ab, Jamison & Brereton 2014; cp. also RV 2,4,5 *jujurván* 'having grown old')

In contrast to the expressions discussed in 5.1-5.5, these examples are purely participant-oriented.

5.7 Quantification and order

Depictives expressing order, as in English he ate the cake **alone**, which are clearly participant-oriented since they only convey information about the referent, not about the way the event takes place, are attested in Vedic several times, mostly referring to Indra or Agni and containing words like $\acute{e}ka$ 'one; alone', $pratham\acute{a}$ - or $p\'{u}rva$ - 'first', emphasizing on unique deeds or traits of these gods, cp.

1	7	1	1
(/	1	,

(=0)

vádhīr	hí	dásyum	dhanínaṃ
slay.AOR.INJ.2SG	PART	demon.ACC.SG.M	wealthy.ACC.SG.M
ghanénam	ékaś	cárann	
1 1.			

bolt.INS.SG.M alone.NOM.SG.M go.PTCP.PRS.ACT.NOM.SG.M

upaśākébhir indra

helper.INS.PL.M Indra.VOC.SG.M

^{&#}x27;For you smashed the wealthy Dasyu with your bolt, **alone**, (though) going together with (your) helpers, Indra.' (RV 1,33,4ab; cp. also RV 1,52,14; ŚB 1,8,1,6 [of Manu])

(72)		
johūtro	agníḥ	prathamáḥ
invoked_on_every_side.NOM.SG.M	Agni.NOM.SG.M	first.NOM.SG.M
pitéva		

[pitấ iva] father.NOM.SG.M. like

^{&#}x27;Agni is invoked **first** on every side like a father' (RV 2,10,1a, Jamison & Brereton 2014; cp. also RV 2,12,1; MS I 5,5(2); I 5,6(1); with *pū́rva*- 'first': RV 2,3,3; MS I 5,11(2); I 5,11(5); JB 1,22-25)

Quantifiers expressing co-participation (*two by two/in pairs*) or frequency (*twice*), the latter participant- and event-oriented (Himmelmann & Schultze-Berndt 2005: 35-36), are not attested in our corpus, but cp. the last example with *sárva*- 'complete, everybody, all' that also contains both readings (already discussed as ex. [14] above):

```
(73)
sā te sárvā

DEM.NOM.SG.F PERS.DAT.2SG all.NOM.SG.F
sámardhiṣyata íti
come_true.FUT.MID.3SG QUOT

'This [request] will all/completely come true for you.' (ŚB 1,8,1,9; cp. also 1,8,1,10.11)
```

5.8 Emphatic pronouns

While the inclusion of emphatic pronouns of the type *She drove the car her-self* may be somewhat surprising, Himmelmann & Schultze-Berndt (2005: 36) cite a Panoan language where these pronouns "display the type of agreement specifically restricted to participant-oriented adjuncts" (cp. also in detail Valenzuela in the same volume, pp. 282-283). For Vedic cp. examples like

```
(74)
sắ

tvám

brūtāt

DEM.NOM.SG.F

PERS.NOM.2SG

say.IMP.2SG

'As such a one you shall say' (ŚB 4,1,5,10; also RV 1,49,4; 1,60,5; 2,13,2)
```

In section 4.3.1, I have already discussed two other examples with the demonstrative sa-/ta- used as participant-oriented adjunct (exx. [28] and [29]). The consistently attested sentence-initial position of these pronouns can be explained by topicalization of the emphasizing element.

5.9 Concomitance and association

Expressions for concomitance (e.g. *the thief with his accomplice*) or association (e.g. *the man with a hat*) are in some languages realized as participant-oriented adjuncts (Himmelmann & Schultze-Berndt 2005: 37 on Warlpiri). In our corpus, there is only one example, already disussed as ex. (1) and (27), that may fall into one of these categories, namely concomitance:

(75)

víṣṇumukhāváidevấ ...Viṣṇu_in_front.NOM.PL.MPARTgod.NOM.PL.Msvareámlokámāvan

heaven.ACC.SG.M world.ACC.SG.M go.IMPF.3PL

However, the compound *viṣṇu-mukha*- might also be interpreted as denoting posture or location (5.2/10). Scarlata & Widmer (*subm.*, 6.1.2/3) suggest *marúd-gaṇa*- 'whose troop are the Marut' (RV 6,52,11a) for concomitance and *tigmáyudha*- 'having a sharp weapon' (RV 2,30,3d) for association, both exocentric compounds describing the referent Indra. Again, these adjuncts not only provide information about the participant, but also about the event itself.

5.10 Location and direction

Expressions for location and direction, while having an event-oriented reading, also convey information about the participant. In Vedic, as in Warlpiri (Himmelmann & Schultze-Berndt 2005: 39), depictives can be used for these meanings, either in form of a complex phrase, compound or spatial adjective, cp. the following examples referring to the subject or the object:

(76) complex phrase:

tisráḥ	pŗthivī́r	upári	pravá
three.ACC.PL.F	earth.ACC.PL.F	LP	floating.NOM.DU.M
divó	nấkaṃ	rakṣethe	
heaven.GEN.SG.M	vault.ACC.SG.M	guard.PR	s.mid.2du
dyúbhir	aktúbhir	hitám	

^{&#}x27;Floating above the three earths, you guard the fixed vault of heaven, through the days, through the nights.' (RV 1,34,8cd, Jamison & Brereton 2014)

put.PPP.ACC.SG.M

(77) compound:

day.INS.PL.M

índram naro **barhiṣádam**

night.INS.PL.M

Indra.ACC.SG.M man.VOC.PL.M sitting_on_barhis.ACC.SG.M

yajadhvam

sacrifice.IMP.MID.2PL

^{&#}x27;Having Vispu at the front, the gods ... went to the heavenly world.' (MS I 4,7(2))

^{&#}x27;You men, sacrifice to Indra sitting on the Barhis [i.e. ritual grass].' (RV 2,3,3d)

```
(78) spatial adjective:

híraṇyahasto ásuraḥ ... yātv

golden_handed.NOM.SG.M Asura.NOM.SG.M drive.IMP.3SG

arvāṅ
```

oriented hither.NOM.SG.M.

In the last example, the depictive adjective *arváñc*- 'oriented hither' may refer either to the agent or the patient of the clause, since the endings of nominative and accusative plural are identical and based on the context, both are possible. The translation by Jamison & Brereton (2014) seems to favour the former:

(79)

arváñcā vāṃ

oriented_hither.NOM/ACC.DU.M PERS.ACC.2DU
sáptayo ... váhantu
team.NOM.DU.M drive.IMP.3PL

sávanéd úpa [sávanā ít úpa] soma-pressing.ACC.PL.N PART LP

5.11 Time and atmospheric condition

Typically, temporal expressions are not encoded by depictives, but by adverbials or nominal case forms, e.g. $ady\acute{a}$ 'today' (RV 1,47,3) or $dy\acute{u}bhir$ aktúbhih INS.PL.M 'through the days, through the nights' (RV 1,34,8). Still, participant-oriented adjuncts may also convey temporal information when interpreted as metonyms (Himmelmann & Schultze-Berndt 2005: 40 and Bucheli Berger in the same volume, p. 170, on the Swiss German expression for 'dark'). In the following Vedic example, the compound astam-yant- 'going home' (with the present participle of the root ay 'go' as second constituent), which is both participant- and event-oriented, implies the evening as the time for the action expressed by the matrix verb:

^{&#}x27;The golden-handed Asura ... shall drive **hither**.' (RV 1,35,10ab)

^{&#}x27;Turning this way, let your team ... convey you to our soma-pressings.' (RV 1,47,8ab, Jamison & Brereton 2014) 42

But cp. also RV 1,34,12ab á no aśvinā trivṛtā ráthena--arvāñcam rayim vahatam suviram 'Aśvins, with your triply turning chariot, bring wealth in good heroes our way', where it unambiguously refers to the patient.

(80)			
asau	$v\bar{a}$	ādityo	'staṃyan
DEM.NOM.SG.M	PART	sun.NOM.SG.M	home_go.PTCP.PRS.ACT.NOM.SG.M
șoḍhā vimroca	ti		
sixfold spread.P	RS.3SG		
'Going home [i e	in the eve	eningl the sun sprea	ds (her rays) sixfold ' (IB 1.7: cn. also

ome [i.e. in the evening], the sun spreads (her rays) sixfold.' (JB 1,7; cp. also JB 1.11)

While this usage is certainly rare for participles, exocentric compounds seem to lend themselves more easily to the expression of a time span. In our corpus, there is no example, but cp. viśvāvu- 'having/lasting a whole life', here in the meaning of 'lifelong' (example taken from Cantera 2005: 108):

(81)						
sá		no		dūrấc	cāsā́c	
[sá		naḥ		dūrất	ca	āsất]
DEM.NC	M.SG.M.	PERS.acc	.1PL	from_afar	and	from_near
ca	ní	mártyād	'	aghā	yóḥ	
and	LP	mortal.ABL.SG.M		wishi	hing_ill.ABL.SG.M	
pāhí		sádam	íd	viśvấyuḥ		
protect.	.IMP.2SG	always	PART	of_all_life.NOM	I.SG.M	
'From a	afar and fro	om near, fro	om the mo	rtal who wishes (u	us) ill protec	t us always, all (yo
lifa lan	α'(RV1'	27.3 cn G	aldnar (20	003[1051)]: "lebe	nelänglich"	43

our) **life long**.' (RV 1,27,3, cp. Geldner (2003[1951)]: "lebenslänglich")

5.12 Resultant state (anterior event) and simultaneous event

Adjuncts expressing the relative chronology of events (i.e. anterior, simultaneous, posterior) differ from the expressions discussed so far as they often have a different morphological origin. Still, there are numerous relations and possible transitions between the types (cp. the semantic maps in Himmelmann & Schultze-Berndt 2005: 43-50). In our Vedic corpus, as has been pointed out already several times, the majority of secondary predicates is made up of participles. These typically denote events, not states. Even taforms, which have a resultative meaning, include the action that has taken place prior to the state reached. So, for expressing anterior, simultaneous and posterior events, numerous examples with participles can be found in Vedic. While participles may of course also occur in other semantic types, at least

Cp. also Scarlata & Widmer (subm., 6.3.1) on dáśa-māsya- '(having lasted) ten months long' (RV 5,78,7; 5,78,9).

in our corpus, the expression of temporally linked events is denoted exclusively by particples.⁴⁴

The widespread usage of participles as depictives found cross-linguistically can be explained by their temporal-/aspectual "background". Especially participles with a resultative meaning "are semantically very close to 'prototypical' depictives (compare the participial *drunk* with the adjective *sober*)" (Himmelmann & Schultze-Bernd 2005: 41, cp. on this also Schultze-Berndt & Himmelmann 2004: 98-106, Sommer 2017: 423-426). This is mirrored exactly in our Vedic corpus where *ta*-forms (together with participles of the perfect stem) frequently express resultative states:

(82) ta-form:

ágne sukhátame ráthe

god.ACC.PL.M invoke.PPP.NOM.SG.M LP drive.IMP.2SG

(83) perfect participle:

vaiśvānaró dásyum agnír

Vaiśvānara.NOM.SG.M demon.ACC.SG.M Agni.NOM.SG.M

jaghanvāmádhūnotkāṣṭhāḥ ...kill.PTCP.PRF.ACT.NOM.SG.Mshake.IMPF.3SGbarrier.ACC.PL.F

'Agni Vaiśvānara, **having smashed** the Dasyu shook the wooden barriers ...' (RV 1,59,6cd; cp. also 1,36,7 *titirváṃsaḥ* 'having overcome (failures)'; 1,53,9 *upajagmúṣaḥ* 'having come hither'; etc.)

Although the *ta*-forms normally also imply the action leading to the result, this seems to change when they are negated. At least our examples argue for the focus to then lie on encoding a state, cp. *ádugdha*- 'unmilked' in ex. (24), also *áskanna*- 'not spilled' and *ávikṣubdha*- 'not shaken' (MS I 4,12(5)). Still, without the possibility of tests, this hypothesis is difficult to prove.

^{&#}x27;Agni, **invoked**, convey the gods here on the best-naved chariot!' (RV 1,13,4ab, Jamison & Brereton 2014; cp. also 1,24,10 *níhitāsaḥ* 'put down'; 1,24,12 *gṛbhītáḥ* 'shackled'; 2,3,1 *sámiddhah* 'ignited', etc.)⁴⁵

⁴

But cp. Scarlata & Widmer (*subm.*, 6.2.1) with an example of a governing compound expressing a simultaneous event alongside a present participle (RV 10.168.1).

⁴⁵ Cp. also Scarlata & Widmer (subm., 6.2.3) on niktá-hastaḥ 'having a cleaned hand' (RV 4,45,5).

For the expression of simultaneous events, participles of the present stem are used. Here, the temporal overlap between first and secondary predicate is complete (cp. also the Warlpiri example in Himmelmann & Schutze-Berndt 2005: 41 and the Rigvedic examples in Lowe 2015: 95). This kind of correlation is attested very frequently in Vedic, cp. among many examples:

present active participle:

(84a)

agnim **upadiśann** uvāca

fire.ACC.SG.M towards_point.PTCP.PRS.ACT.NOM.SG.M speak.PRF.3SG

'He spoke while pointing towards the fire.' (JB 1,22-25)

(84b)

tásy**ābhikrámaṃ** juhuyāt [tásya **abhikráman** juhuyāt]

DEM.GEN.SG.M come_closer.PTCP.PRS.ACT.NOM.SG.M sacrifice.PRS.OPT.3G

'For him he shall sacrifice while coming closer.' (MS I 4,12(3))

(85) present middle participle:

tát tvā yāmi DEM.ACC.SG.N PERS.ACC.2SG ask.PRS.1SG

bráhmaṇā **vándamānaḥ**

formulation.INS.SG.N praise.PTCP.PRS.MID.NOM.SG.M

'Praising (you) with (my) sacred formulation, I implore this of you.' (RV 1,24,11a)

5.13 Subsequent event

For the expression of subsequent events depictives seem *prima facie* to be less eligible, because the temporal overlap is lacking. Still, as Schultze-Berndt & Himmelmann (2004: 104-106) have shown, in Australian languages, subsequent events may be encoded by depictives, if they carry an element of intention. ⁴⁶ This intention, which can also be analysed as some kind of "pre-state", may be predicated of the controller who coincides mostly, but not exclusively, with the agent. In our corpus, only a few examples with future particples seem to belong to this type:

-

⁴⁶ Cp. also Widmer & Scarlata (2017: 811), Scarlata & Widmer (*subm.*, 6.2.2) on RV 2,3,5 and 5,5,5, on Avestan cp. Sommer (2017: 425).

(86)

yád dhavír **nirvapsyánn**

CONJ sacrifice.ACC.SG.N sprinkle.PTCP.FUT.ACT.NOM.SG.M

agnáu niṣṭápati

fire.LOC.SG.M burn_out.PRS.3SG

'Since he, **intending to sprinkle** the sacrifice, burns (the spoon) out in the fire ...' (MS I 4,6(1); cp. also MS I 4,5(1) *yakṣyámāṇa*- 'intending to sacrifice'; I 4,14(1) *ālapsyámāna*- 'going to perform', all translations reflect Amano's 2009 German translation)

6 Conclusion

In this paper, the various syntactic and semantic properties of secondary predicates in Vedic Sanskrit have been explored in detail closely following the analysis of Himmelmann & Schultze-Berndt (2005). Our findings have been compared cross-linguistically with those of Simpson (2005) for Warlpiri and English. In Vedic Sanskrit, secondary predicates as a category have no specific morphological marking and show great flexibility regarding the combination with main predicates, the case form of the controller (except for the vocative), and the word classes they may belong to – though participles, especially present participles, form the biggest sub-group. Still, the result that stands out is that word order turns out to be more regular than expected: Syntactically, secondary predicates are adjuncts, which generally show great flexibility of word order, especially in the Rigveda. The default position, though, seems to be that of the secondary predicate following its controller, as consistently in our prose corpus, and to a lesser degree, in the Rigveda. Complex secondary predicates, on the other hand, i.e. those with additional constitutents, seem to favour edge-placement, especially on the right edge following the finite verb, a factor that may be connected to morphological and/or semantic heaviness. Other exceptions from the post-controller position, e.g. clause-initial position of the secondary predicate, may be explained at least partly by information structure (topicalization) – especially if the depictive in question is an emphatic pronoun. The additional constituents themselves show a strong tendency to immediately precede the secondary predicate throughout our corpus, i.e. in metrical and prose texts.

The semantic range expressed by secondary predicates is very broad and shows great variability consistent with the formal and syntactic flexibility that differentiates Vedic Sanskrit from Western European languages like

Modern English and German. Many of the expressions discussed in section 5 are located in a continuum between participant and event orientation. While participant orientation is obligatory in secondary predicates, a surprising number of them also convey information about the way the action takes place putting them, in this regard, into the vicinity of event-oriented adverbials, from which they are clearly differentiated in Vedic Sanskrit on the formal side, though. For the expression of temporally linked events participles of various tense/aspect stems are employed.

To conclude this paper, I will now present a short look beyond the formal and semantic properties of secondary predicates in Vedic and discuss them in the broader perspective of the early stages of the alignment change that leads to the emergence of ergativity in Indo-Aryan languages, our research interest in the current CRC. In this context, we are especially interested in *ta*-forms and present active participles, since they are the forms used in the place of finite verbs in modern Indo-Aryan languages. More specifically, we are interested in subordinate usages, because those are the exact contexts in which transitive verbs typically appear with two overt arguments (agent and patient) in as early as Vedic Sanskrit. That overt agents mostly appear in subordinate constructions in Vedic has already been noted by Jamison (1979: 201):

"... when the past participle appears with agent, it very seldom carries the verbal notion of the sentence. In other words, it is not often used to form the predicate of a complete clause but is embedded in a sentence already containing a finite verb." (highlighting added)

In main clauses, on the other hand, the same participles are used as nominal predicates and mostly retain their nominal syntax, where only the patient is expressed overtly. They also have a clearly resultative meaning. The following two examples shall illustrate this by showing first a subordinate construction with an overt agent and second a main clause construction with only one overt argument:

(87) secondary pr	edicate with two ov	ert arguments:	
máhi	jyóti <u>ḥ</u>	pit <u>ŕbhir</u>	dattám
great.NOM.SG.N ágāt	light.NOM.SG.N	father.INS.PL.M	give.PPP.NOM.SG.N
hither_come.AOR.	.3sg		

'The great light given by the fathers has come hither.' (RV 10,107,1c)⁴⁷

(88) nominal predicate with one overt argument:

sá	hovāca		ható	<u>vrtró</u>
[sá	ha	uvāca	hatáḥ	<u>vṛtráḥ</u>]
DEM.NOM.SG.M	PART	say.PRF.3SG	slay.PPP.NOM.SG.M	Vrtra.NOM.SG.M
'He said, 'Vrtra is slain .'' (ŚB 4.1.3.4) ⁴⁸				

Still, numerous linguists cling to a passive-to-ergative hypothesis taking examples like (88) as the starting point for this alignment change, although the agent is not expressed and this construction can for various reasons not be analysed as passive (cp. on this also recently Reinöhl 2018; Casaretto, Dimmendaal, Hellwig, Reinöhl & Schneider-Blum 2020). Instead, we assume that subordinate constructions involving secondary predicates, which are attested with two overt arguments already in the *Rigveda*, are possible precursors for the alignment change from nominative-accusative to ergative-absolutive.

How did the change from secondary to main predicate come about? I suggest here very briefly a possible grammaticalization path, the details of which are to be part of another publication: Himmelmann & Schultze-Berndt (2005: 51-52) discuss sentences with collocational restrictions of the kind that some combinations may appear lexically fixed with adjacency of main and secondary predicate. This combination would then look similar to a complex predicate, as in English *Mike never leaves sober* where the context conventionally suggests a party, more precisely: *Mike never leaves sober* [i.e. parties that he goes to]. If the main verb is semantically relatively empty, these constructions may over time change from a depictive construction to a periphrastic construction with the former main predicate acting as copula and the former depictive acting as the new main predicate. Distinguishing between both construction types can sometimes be difficult making these ambiguous sentences possible starting points for this development (cp. Casaretto & Reinöhl, subm., on RV 1,32,11ab). Thus, identifying possible

-

⁴⁷ Note that all examples with *dattá*- 'given' in the *Rigveda* are secondary predicates with overt agent, cp. also RV 1,126,3; 1,163,2; 2,38,11; 8,45,42.

While there are some rare instances of nominal predicates with overt agent in the genitive or instrumental case (on this in detail Jamison 1979), the overwhelming majority of nominal predicates in the oldest Vedic texts appear without agent, as in the example just given.

collocations for the transition from secondary to main predicate in Vedic Sanskrit appears to be an important next step forward to understanding the complex remodeling of the Indo-Aryan verbal system.

Antje Casaretto

Institut für Linguistik Universität zu Köln Meister-Ekkehart-Str. 7 50937 Köln

antje.casaretto@uni-koeln.de

References

- Amano, Kyoko. 2009. Maitrāyanī Samhitā I-II. Übersetzung der Prosapartien mit Kommentar zur Lexik und Syntax der älteren vedischen Prosa. Bremen: Hempen.
- Van Der Auwera, Johan & Andrej Malchukov. 2005. A semantic map for depictive adjectivals. In: Himmelmann, Nikolaus P. & Eva Schultze-Berndt (eds.). Secondary Predication and Adverbial Modification. The typology of depictives. Oxford: Oxford University Press. 393-421.
- Bakker, Stéphanie Josette. 2009. The Noun Phrase in Ancient Greek. A functional analysis of the order and articulation of NP constituents in Herodotus. Leiden & Boston:

 Brill
- Bucheli Berger, Claudia. 2005. Depictive agreement and the development of a depictive marker in Swiss German dialects. In: Himmelmann, Nikolaus P. & Eva Schultze-Berndt (eds.). Secondary predication and adverbial modification. The typology of depictives. Oxford: Oxford University Press. 141-171.
- Burkard, Thorsten & Markus Schauer. 2012. Lehrbuch der lateinischen Syntax und Semantik. Begründet von Hermann Menge. 5. durchgesehene und verbesserte Auflage. Darmstadt. Wissenschaftliche Buchgesellschaft.
- Caland, Willem. 1919. Das Jaiminīya-Brāhmaṇa in Auswahl. Text, Übersetzung, Indices. Amsterdam: Johannes Müller.
- Cantera, Albert. 2005. Adverbal-prädikative Adjektive im Indoiranischen. Historische Sprachforschung 118: 101-129.
- Casaretto, Antje & Uta Reinöhl. (*subm.*) Identifying discourse functions without formal clues Secondary predicates and related functions in Vedic Sanskrit.

- Casaretto, Antje, Gerrit J. Dimmendaal, Birgit Hellwig, Uta Reinöhl & Gertrud Schneider-Blum. 2020. Roots of Ergativity in Africa (and beyond). *Studies in African Linguistics* 49: 111–140.
- Conti, Luz. (to appear) Zur Entwicklung von ἐκὼν εἶναι im Altgriechischen von limitativer Infinitivkonstruktion zum parenthetischen Ausdruck. Indogermanische Forschungen.
- Corbett, Greville G. 2006. Agreement. Cambridge: Cambridge University Press.
- Crespo, Emilio, Luz Conti & Helena Maquieira. 2003. Sintaxis del griego clásico. Madrid: Gredos.
- Croft, William. 2012. Verbs: Aspect and Causal Structure. Oxford: Oxford University Press.
- Delbrück, Berthold. 1878. *Die altindische Wortfolge aus dem Çatapathabrāhmaṇa dargestellt*. Halle: Verlag der Buchhandlung des Waisenhauses.
- Delbrück, Berthold. 2009 (1888). *Altindische Syntax*. Cambridge: Cambridge University Press.
- Dowty, David. 1991. Thematic proto-roles and argument selection. *Language* 67: 547-619.
- Van Emde Boas, Evert et al. 2019. *Cambridge Grammar of Classical Greek*. Cambridge: Cambridge University Press.
- Geldner, Karl F. 2003 (1951). Der Rig-Veda. Aus dem Sanskrit ins Deutsche übersetzt und mit einem laufenden Kommentar versehen von Karl Friedrich Geldner. Ed. by Michael Witzel. Cambridge, MA: The Department of Sanskrit and Indian Studies, Harvard University.
- Haig, Geoffrey & Stefan Schnell. 2011. Annotations using GRAID (Version 6.0). https://www.isfas.uni-kiel.de/de/linguistik/forschung/uploads/graid-content/graid-manual-6.0
- Haug, Dag T.T. 2011. Backward control in Ancient Greek subsumption or linearization? In: Butt, Miriam & Tracy Holloway King (eds.). *Proceedings of the LFG11 Conference*. Stanford, CA: CSLI Publications. 278-298
- Heberlein, Friedrich. 1996. Über prädikative Adjektive. In: Bammesberger, Alfred & Friedrich Heberlein (eds.). *Akten des VIII. internationalen Kolloquiums zur lateinischen Linguistik.* Heidelberg: Winter. 354–371.
- Hettrich, Heinrich. 1988. *Untersuchungen zur Hypotaxe im Vedischen*. Berlin/New York: de Gruyter.
- Himmelmann, Nikolaus P. & Eva Schultze-Berndt (eds.). 2005. Secondary Predication and Adverbial Modification. The typology of depictives. Oxford: Oxford University Press.
- Himmelmann, Nikolaus P. & Eva Schultze-Berndt. 2005. Issues in the syntax and semantics of participant-oriented adjuncts: an introduction. In: Himmelmann, Nikolaus P. & Eva Schultze-Berndt (eds.). Secondary predication and adverbial modification. The typology of depictives. Oxford: Oxford University Press. 1-67.

- Jamison, Stephanie W. 1979. Remarks on the expression of agency with the passive in Vedic and Indo-European. Zeitschrift für Vergleichende Sprachforschung 93: 196-219.
- Jamison, Stephanie W. & Joel P. Brereton. 2014. *The Rigveda. The earliest religious poetry of India*. Oxford: Oxford University Press.
- Keydana, Götz. 2000. Prädikativa im Altindischen. In: Chojnacki, Christine, Jens-Uwe Hartmann & Volker Tschannerl (eds.). Vividharatnakarandaka. Festgabe für Adelheid Mette. Swisttal-Odendorf: Indica et Tibetica. 369-378.
- Keydana, Götz. 2016. Review on Lowe, John J. Participles in Rigvedic Sanskrit. The syntax and semantics of adjectival verb forms. *Journal of South Asian Languages* and *Linguistics* 3: 223-230.
- Lowe, John J. 2015. Participles in Rigvedic Sanskrit. The syntax and semantics of adjectival verb forms. Oxford: Oxford University Press.
- van Nooten, Barend A. & Gary B. Holland. 1994. *Rig Veda. A metrically restored text*. Cambridge, MA: Harvard University Press.
- Reinöhl, Uta. 2018. Review of Dahl, Eystein & Krzysztof Stroński (eds.). Indo-Aryan Ergativity in typological and diachronic perspective. *Journal of South Asian Languages and Linguistics* 5: 111-121.
- Reinöhl, Uta. 2020. Continuous and discontinuous nominal expressions in flexible (or "free") word order languages Patterns and correlates. *Linguistic Typology* 24: 71-111.
- Riaubienė, Benita. 2015. Resultative Secondary Predication in European Languages. Vilnius: Vilnius Universitetas.
- Rieken, Elisabeth. 2017. Das hethitische Partizip: Zur Schnittstelle von Syntax und Semantik. In: Claire Le Feuvre, Daniel Petit & Georges-Jean Pinault (eds.). Verbal Adjectives and Participles in Indo-European Languages. Adjectifs verbaux et participes dans les langues indo-européennes. Proceedings of the conference of the Society for Indo-European Studies (Indogermanische Gesellschaft), Paris, 24th to 26th September 2014. Bremen: Hempen. 391-403.
- Scarlata, Salvatore & Paul Widmer. (to appear) Rigvedische Komposita in der rekursiven Satzverknüpfung.
- Scarlata, Salvatore & Paul Widmer. (*subm.*) rgvedic adjectival compounds as expressions of linked events.
- von Schroeder, Leopold. 1881-86. *Maitrâyaṇī Saṃhitâ. Die Saṃhitâ der Maitrâyaṇîya-Śâkhâ*. Herausgegeben von Leopold von Schroeder. 4 Bände. Leipzig (Reprint Wiesbaden 1970-1972).
- Schultze-Berndt, Eva & Nikolaus Himmelmann. 2004. Depictive secondary predicates in crosslinguistic perspective. *Linguistic Typology* 8: 59-131.
- Simpson, Jane. 2005. Depictives in English and Warlpiri. In: Himmelmann, Nikolaus P. & Eva Schultze-Berndt (eds.). *Secondary Predication and Adverbial Modification. The typology of depictives*. Oxford: Oxford University Press. 69-106.

- Sommer, Florian. 2017. Komposita, Partizipien und Partizipanten im Jungavestischen. In: Claire Le Feuvre, Daniel Petit & Georges-Jean Pinault (eds.). Verbal Adjectives and Participles in Indo-European Languages. Adjectifs verbaux et participes dans les langues indo-européennes. Proceedings of the conference of the Society for Indo-European Studies (Indogermanische Gesellschaft), Paris, 24th to 26th September 2014. Bremen: Hempen. 419-433.
- Valenzuela, Pilar M. 2005. Participant agreement in Panoan. In: Himmelmann, Nikolaus P. & Eva Schultze-Berndt (eds.). *Secondary Predication and Adverbial Modification. The typology of depictives*. Oxford: Oxford University Press. 259-298.
- Vendler, Zeno. 1967. Verbs and times. In: Zeno Vendler (ed.). *Lingustics in Philosophy*. Ithaca, NY: Cornell University Press. 97-121.
- Weber, A. 1855. The Çatapatha-Brâhmaṇa in the Mâdhyamdina-Çâkhâ with extracts from the commentaries of Sāyaṇa, Harisvâmin and Dvivedaganga. Berlin & London (Reprint Varanasi 1964).
- Widmer, Paul & Salvatore Scarlata. 2017. Good to go: RV suprayāṇá-. In: Simmelkjær Sandgaard Hansen, Bjarne et al. (eds.). Usque ad Radices. Indo-European studies in honor of Birgit Anette Olsen. Copenhagen: Museum Tusculanum Press. 801-814.