

Prosody Reveals Syntactic Structure: Secondary Predication in Finite Metrical Corpora

Anabelle Caso*

1 Introduction

A secondary predicate is a nonverbal expression which conveys information about an argument of the lexical verb in a clause, but which is distinct from the primary predicate within which that verb is contained. Two primary types of secondary predicates are resultative (1) and depictive (2) secondary predicates.

A resultative secondary predicate expresses a *state* achieved by some major argument in the primary predicate *as a result* of the action indicated by the lexical verb. Crucially, this state is caused by the action indicated by that verb (Irimia 2012).

(1) Resultative secondary predicates

- a. John-ga teeburu-o kiree-ni hui-ta
John-NOM table-ACC clean wipe-PST
'John wiped the table clean.' (Japanese, Milway 2019)
- b. die Teekanne leer trinken
DET teapot.NOM empty drink.INF
'...To drink the teapot empty.' (German, Kratzer 2005)

A depictive secondary predicate describes a *state* which is not caused by the primary predicate; depictives describe the state of their subject *at the time when* the action indicated by the lexical verb in the primary predicate occurs (Milway 2019).

(2) Depictive secondary predicates

- a. Ali yumurta-yı haşlan-mış ye-di
Ali egg-ACC boil-PTCP eat-PST
'Ali ate the egg boiled.' (Turkish)¹
- b. Ana leyó el libro enferma
Ana read.PST DET.M book.M ill
'Ana read the book ill.' (Spanish, Gumiel-Molina et al. 2015)

Unlike an adverb or converb, resultative and depictive secondary predicates do not simply modify events. Likewise, secondary predicates go beyond adjectival, prepositional, or non-finite structures which modify individuals. This is reflected cross-linguistically in various strategies which disambiguate them from event/individual modification readings. One such disambiguation strategy is prosody: secondary predicates are distinguished from attributive structures via prosodic markedness (Guzzo and Goad 2017).

This paper examines the behavior of secondary predicates in ancient metrical corpora and concludes that *the Vedic Sanskrit and Ancient Greek languages likely distinguished secondary predicates from attributive structures via prosodic markedness strategies*. It is organized as follows: Section 2 discusses the prosodic (and syntactic-semantic) behavior of secondary predicates, drawing on Serbian and Mod. Irish depictive data. Section 3 examines the behavior of secondary predicates in the ṚgVeda and the Homeric poems. Here I aim to demonstrate that secondary predicates are *consistently* subject to strategies of prosodic isolation in these texts, in contrast to attributive modifiers (Section 3.1). This is supported by an examination (Section 3.2) of a tagged ṚgVeda corpus

*Thank you to the audiences of ECO-5 2023, PLC47, and ICHL26. Thank you also to Mark Hale, Kevin Ryan, Jeremy Rau, Jay Jasanoff, Kathryn Davidson, Oisín Ó Muirthile, Dylan Cooper, William Edwards, Timothy Hampshire, and Yvette Wu for discussions.

¹Turkish data generously provided by Yağmur Sağ.

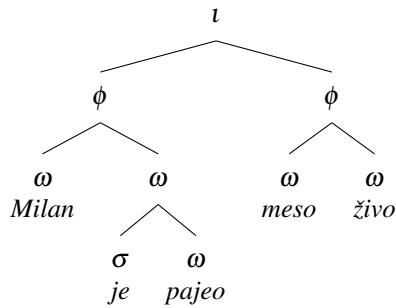
(Hellwig et al. 2018). Section 4 draws on prose texts, providing evidence for the claim that prosodic markedness is an available strategy for the treatment of secondary predicates in the Vedic Sanskrit and Ancient Greek languages. Section 5 concludes.

2 Secondary Predication at the Interfaces

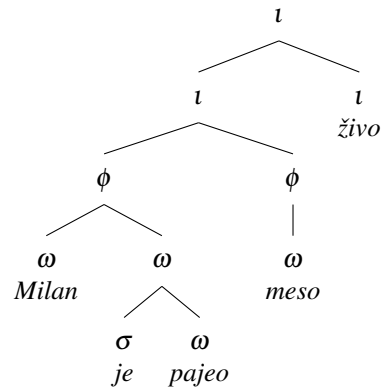
Cross-linguistically, secondary predicates can be marked with special prosody (Winkler 1997, Schultze-Berndt and Himmelmann 2004, Irimia 2012). This is true of Serbian,² wherein depictive³ secondary predicates can be distinguished from attributive modifiers by prosodic markedness—the pattern of sentential stress differentiates the former reading by stressing the secondary predicate AP.

- (3) Milan je pojeo meso živo
 Milan.NOM AUX eat.PST.PTCP meat.ACC raw
 ‘Milan ate the raw meat.’ (Serbian attributive adjective)
- (4) Milan je pojeo meso **ŽIVO**
 Milan.NOM AUX eat.PST.PTCP meat.ACC raw
 ‘Milan ate the meat raw.’ (Serbian depictive)⁴

This prosodic markedness reflects the fact that secondary predicates are prosodically distinct units. The property of prosodic distinctiveness can be captured in terms of the prosodic hierarchy (Selkirk 1980, 1986, Nespor and Vogel 1986, Hayes 1989): like the primary predicate, the secondary predicate is high on the prosodic hierarchy. As such, it is distinguishable from an attributive expression at the ω/ϕ level. Possible prosodic parses of (3-4), where the secondary predicate corresponds to an t -domain, are below:



Tree 1: Serbian attributive AP ((3)).



Tree 2: Serbian secondary predicate AP ((4)).

The structure in Tree 2 can be derived with the ranking of a constraint like LAYEREDNESS above NON-RECURSIVITY, resulting in extraposition of the secondary predicate to a high position (Selkirk 1996, Potsdam 2022). Penalizing ill-formed prosodic structures, these constraints are formulated below:

- (A) LAYEREDNESS: a prosodic constituent does not contain a constituent that is higher on the prosodic hierarchy (Selkirk 1996)

²Serbian data generously provided by Aljoša Milenković.

³Serbian forms only periphrastic resultatives such as *Milan je ofarbao kosu u plavo* ‘Milan dyed his hair in blond’. Serbian does not form resultative secondary predicates like those in English and German (i.e. bare AP/PP resultatives) such as ‘John hammered the metal flat’.

⁴Tijmen Pronk *p.c.* has pointed out that the use of a non-neuter noun would remove any potential ambiguity between an adverbial and secondary predicate reading in this string, given that a neuter adjective can also be read as an adverb in Serbian.

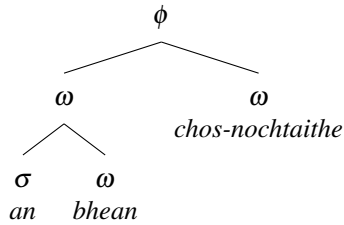
(B) NON-RECURSIVITY: a prosodic constituent C_n does not dominate another constituent of the same level C_n (Féry 2015)

The treatment of depictive⁵ secondary predicates in Mod. Irish provides evidence of complex syntactic-semantic structure⁶ via phonological cues:⁷ while attributive structures require the application of an initial mutation, secondary predication structures do not allow it.

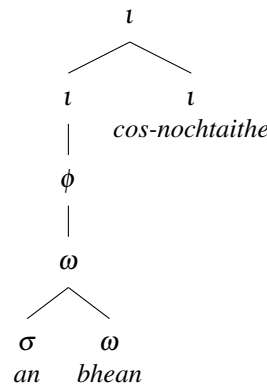
(5) an bhean CHOS-NOCHTAITHE
 DET woman barefooted
 ‘...The barefooted woman.’ (Mod. Irish attributive adjective)

(6) ...an bhean COS-NOCHTAITHE
 DET woman barefooted
 ‘...The woman barefooted.’ (Mod. Irish depictive)⁸

Assuming the extraposition analysis above, the Mod. Irish prosodic parse has the attributive structure in (5) contained within the same prosodic phrase (ϕ) as its head noun while the secondary predicate structure in (6) is extraposed to an intonation phrase (l):



Tree 3: Mod. Irish attributive AP (5).



Tree 4: Mod. Irish secondary predicate AP (6).

Under MATCH theory, the mapping of syntax to prosody is regulated by correspondence requirements that hold between abstract syntactic structure and prosodic structure. Preferentially, syntactic constituents map to prosodic constituents of the same level: morphosyntactic words (X^0) map to prosodic words (ω), syntactic phrases (XP) map to prosodic phrases (ϕ), and clauses (CP/TP) map to intonation phrases (l) (Selkirk 1974, 1996, 2011, Elfner 2012, Ito and Mester 2013). The prosodic independence of secondary predicates in Mod. Irish can therefore be taken to reflect facts about its syntactic-semantic independence. That is, the differential treatment of two otherwise distributionally identical strings (5-6) suggests sensitivity to a structural boundary that is revealed via phonological consequence.

I conclude that secondary predicates are uniquely situated within considerations of the syntax-prosody interface, and that prosodic/phonological behavior can be used to identify them as complex structures distinct from their attributive counterparts. In ancient languages and in the absence of clear syntactic differentiation between attributive and secondary predicate modification within them, only metrical texts will allow us to recover facts like these.

⁵Like Serbian, Mod. Irish primarily forms periphrastic resultative secondary predicates.

⁶Current literature on secondary predication contains varied descriptions of the syntax and semantics of resultatives and depictives. Space prevents me from discussing these analyses in detail; where relevant, I assume multi-layered independent *depP* and *resP* projections that contain small clauses in line with Ramchand 2008, Irímia 2012, Milway 2019, and others. For further reading see also Kratzer 2005, Pyllkkänen 2008, Bruening 2018, and references therein.

⁷Mod. Irish data generously provided by Oisín Ó Muirthile.

⁸This depictive is subject-oriented; the sentential subject is not included in this string.

3 Vedic Sanskrit and Homeric Greek Secondary Predicates

3.1 Metrical Texts and Prosodic Isolation

In order to make meaningful observations about the syntactic, semantics, and prosodic structure of ancient poetic texts, it must be the case that such texts reflect linguistically real properties. In order to draw linguistic conclusions from these texts, the following must be assumed:

- Assumption 1: the distribution of constituents, regulated by metrical requirements, is restricted in a way that obeys the grammatical features of the relevant languages.

Given this, I hold that *elements in the Homeric poems and the R̥gVeda consistently subjected to strategies of prosodic isolation within and across lines are taken to be prosodically marked* (Hale and Kisosock 2021). Note that the primary claim set forth here is that elements with marked prosody will *consistently* appear in isolated positions, and not that unmarked elements will not appear in these positions as a result of independent factors such as restrictions imposed by the length of lines and other metrical requirements. Strategies of prosodic isolation in the R̥gveda and the Homeric are summarized below:

- (i) adjacency to a caesura⁹
- (ii) sentence final/post-verbal position
- (iii) the process of *enjambment* whereby syntactic units are broken across multiple prosodic domains (i.e. metrical lines) at the expense of Selkirk 2011's MATCH constraints
- (iv) a combination of (i)-(iii).

The implementation of these strategies can be seen in the data below:

- (7) dādrhāṇó vājram † índro gábhastyoḥ ||
 hold.PTCP.PERF.MID.NOM.SG.M Vajra.ACC.SG.M † Indra.NOM.SG.M hand.LOC.DUAL.M ||
 kṣádmeva tigmám † ásanāya sám śyad
 knife.ACC.SG.N.like sharp.ACC.SG.N † for.throwing.DAT.SG LP hone.3SG.PRS.INJ
 ‘Holding the Vajra in (his) hands, Indra honed (it) **sharp** for throwing like a carving knife...’
 (RV 1.130.4ab)

The state of being sharp in (7) is achieved as a result of the action indicated by the matrix verb *śā*. This resultative secondary predicate is prosodically isolated by means of (i) adjacency to a caesura.

- (8) eí pántes sùn nēusìn † apēmōnes ‡ lthon
 if all.NOM.PL.M with ship.DAT.PL.F † unharmed.NOM.PL.M ‡ come.3PL.AOR.ACT
 Achaioí
 Achaean.NOM.PL.M
 ‘Whether all the Achaeans came **unharmed** with their ships...’ (Od 4.487)

The state of being unharmed in (8) is concurrent with the action indicated by the matrix verb *érchomai*. This subject-oriented depictive secondary predicate is isolated via (i) adjacency to a caesura. Interestingly, it is tucked in between the caesura and bucolic diaeresis. Given that Homeric lines are built from both the left and the right edges, this space is unique—presumably, it is “left over” after formulaic and non-manipulable portions of the text have already been built by poets.¹⁰

⁹Note that pauses in the R̥gveda come either after syllable 4 or 5 in 11 syllable *tristubh* lines (†) and 12 syllable *jagatī* lines (‡), and following line breaks (||). Pauses in the Homeric poems include the principle caesura in the third or fourth foot (†), the bucolic diaeresis between the fourth and fifth foot (‡), and following line breaks (||).

¹⁰Jeremy Rau, *p.c.*

- (9) ásyā vedaḥ khidāti † hánti
 PVB+he.GEN.SG.M possessions.ACC.SG.M rips/claws.away.3SG.NPST † slay.3SG.NPST
 nagnám
 naked.ACC.SG.M
 ‘...He rips away his possessions and slays him **naked**...’ (RV 4.25.7c)

In (9), the state of being naked is concurrent with the action indicated by the matrix verbs *han* and *khid*. The secondary predicate is an object-oriented depictive isolated via (ii) sentence final/post-verbal position.

- (10) tòn d’ hōs oīn enōēse podárkēs dīos
 he.ACC.SG.M but thus really see.3SG.AOR.ACT swift.NOM.SG.M divine.NOM.SG.M
 Akhilleūs || gumnòn
 Achilles.NOM.SG || naked.ACC.SG.M
 ‘Now as brilliant swift-footed Achilles saw him **naked**...’ (II 21.49-50)

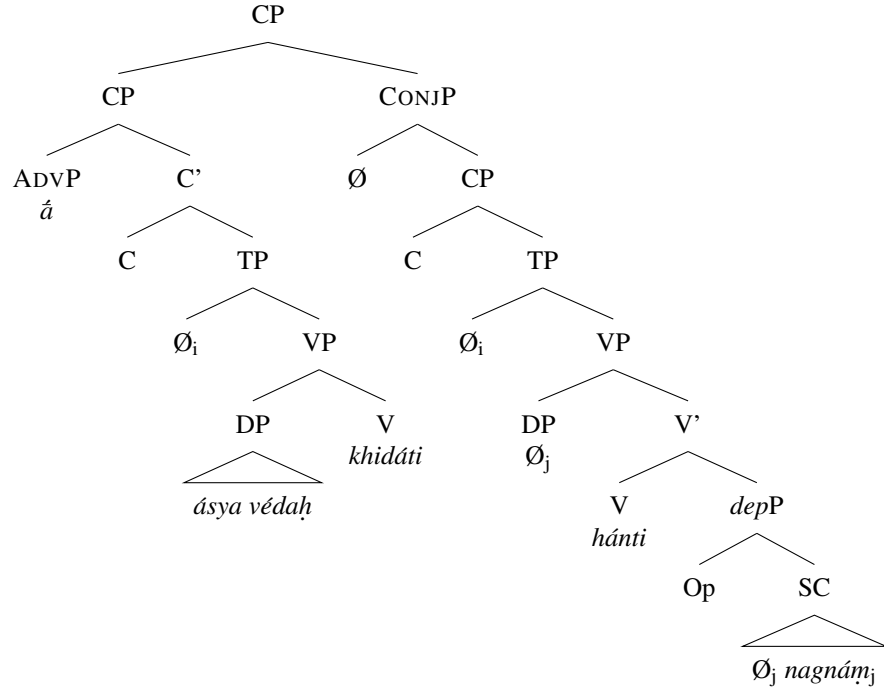
In (10), the state of being naked is concurrent with the action indicated by the matrix verb *noéo*.¹¹ This object-oriented depictive secondary predicate is isolated via (iii) enjambment: it has been moved to the initial position on the following line, far from its subject (the object of the primary predicate).

- (11) ‡ énthā thameià || Murmidónōn eirunto néēs
 ‡ then crowded.NOM.PL.F || Myrmidon.GEN.PL drag.3PL.IMPF.MP boat.NOM.PL
 takhùn amph’ Akhila
 fast.ACC.SG.M around Achilles.ACC.SG
 ‘...Then the boats of the Myrmidons were dragged **thick** around quick Achilles.’ (II 18.68-69)

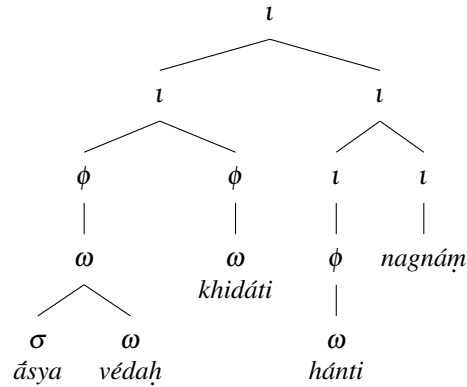
In (11), the state of being crowded is concurrent with the action indicated by the matrix verb *erío*. This subject-oriented depictive secondary predicate is isolated via (iv) adjacency to a line break and enjambment—it follows the bucolic diaeresis on a preceding line, having been stranded significantly from the primary predicate subject with which it is co-indexed.

Sensitivity on the part of the poets to secondary predication reflects their status as prosodically marked when compared to attributive participles and adjectives, which is in turn a consequence of their syntactic-semantic complexity. Following the discussion in Section 2, the syntactic-semantic structure and prosodic parse of example (9) above is therefore as follows:

¹¹Instances of the *naked* and *raw* words in Homeric poetry provide particularly strong evidence for the claim defended here: examples in the Iliad and the Odyssey are almost all enjambed or adjacent to a caesura, and secondary predication readings are likely in all instances.



Tree 5: Syntactic representation of Vedic object-oriented depictive (9).¹²



Tree 6: Prosodic parse of Vedic object-oriented depictive (9).

In contrast, the prosodic parse of an attributive will not include extraposition to an ι -domain. The following strings do not have secondary predication interpretations:

(12) Attributive adjectival constructions (with adjacency to head noun):

- a. pívānam meṣām apacanta vīrāḥ
fat.ACC.SG ram.ACC.SG cooked.3PL heroes.NOM.PL

‘The heroes cooked a fat ram...’

(RV 10.27.17a)

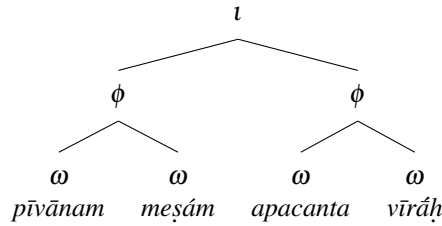
- b. prá yaṃsi hotar bṛhatīr íṣo naḥ
PV hold.IMPV Hotar.VOC.SG tall.ACC.PL drinks.ACC.PL us.DAT

‘Hold forth the tall refreshing drinks for us, O Hotar!’

(RV 3.1.22c)

¹²Null elements (the pronominal subject and object and the conjunction material) are included for clarity as the symbol \emptyset . Fine-grained movement of the pronominal object and the secondary predicate within the *depP* are not depicted. V-to-T-to-C movement of *hánti*, if present, is also not depicted.

- c. yuvó rāṣṭarām bṛhád invati dyaúḥ
 you.GEN.DUAL rule.ACC.SG high.ACC.SG speed.3SG.NPST heaven.NOM.SG
 ‘Heaven speeds the lofty rule of you two...’ (RV 7.84.2a)



Tree 7: Prosodic parse of Vedic attributive AP (12a).

The caesura-adjacent position of the attributive adjectives in (12) is not expected to be a disambiguating or poetic emphatic strategy. While attributive adjectives may appear in prosodically isolated positions, they needn’t; secondary predicates consistently appear in these positions (7-11).

The preceding evidence indicates that prosodic isolation strategies (i-iv) are used to mark secondary predicates in the Ṛgveda and the Homeric poems. The marking of secondary predicate constructions prosodically in languages where ambiguity can arise between attributive and secondary predication readings (e.g. Serbian and Mod. Irish) distinguishes secondary predication from other interpretations. Given Assumption 1, it follows that the consistent application of prosodic isolation strategies in metrical text reflects a linguistic fact about Ancient Indic and Greek more generally: *secondary predicates are expected to be prosodically marked, in contrast to attributive modifiers.*

3.2 Corpus Considerations

The following task was completed in R using a multi-level annotation of the Ṛgveda (Hellwig et al. 2018) that includes both surface and Pada forms, the position of an element in a given line, part of speech, and case. The ṚgVeda translation of Jamison and Brereton 2014 serves as the basis for the determination of secondary predicate and attributive readings in a given line. Lexical items chosen for examination are three. The first is the participle *sántam* ‘being’ (ACC), following an observation originally made by DB Monro (1891) that certain participial constructions “often [have] the character of a distinct clause, coming at the end of a sentence, and after a metrical pause” (243.3-a). The second is the adjective *nagná(m)* ‘naked’ (NOM and ACC), given its tendency to occur in secondary predicate constructions cross-linguistically. The third is the adjective *tigmá(m)* ‘sharp’ (NOM and ACC), given its common attributive association.

The immediate goal of the present corpus survey is to provide evidence for the hypothesized tendency that participles and adjectives in prosodically isolated positions have secondary predication interpretations. As such, 8 syllable lines are ignored, given the distributional restrictions entailed by lines of this length.

3.2.1 *sántam*

The participle *sántam* ‘being’ has a rather high rate of occurrence in the Ṛgveda. It occurs 28 times as a verbal noun in the corpus. Of those 28 occurrences, 18 occur in lines longer than 8 syllables (triṣṭubh or jagatī lines). Taking only those participles that occur in lines longer than 8 syllables, 14 (79%) occur in positions adjacent to a caesura.¹³ Of those which are not adjacent to a caesura, no secondary predication reading is apparent; secondary predicate interpretations are only available in caesura-adjacent (i.e. prosodically isolated) positions.

¹³There are no *sántam* occurrences in post-verbal/sentence final position.

3.2.2 *nagná(m)*

The adjective *nagná* ‘naked’ occurs 5 times in this R̥gveda corpus. Of those 5 occurrences, 3 occur in lines longer than 8 syllables. Taking only those adjectives which occur in lines longer than 8 syllables, 2 are line/sentence-final, and 1 is adjacent to a caesura. Both line/sentence-final occurrences have a secondary predicate interpretation; the caesura-adjacent occurrence (RV 10.61.9) likewise has a secondary predicate interpretation.

3.2.3 *tigmá(m)*

The adjective *tigmá* ‘sharp’ is a common adjective which is expected to more regularly occur in attributive expressions. It occurs 23 times in the corpus in its nominative (11) and accusative (12) forms. Of these 23 occurrences, 18 occur in lines longer than 8 syllables; 100% of these occurrences are in prosodically isolated positions. 5 occurrences are line-final (one, RV 10.108.5, is clearly in sentence-final/post-verbal position). 9 occurrences are line-initial. 4 are adjacent to caesurae.

Of those occurrences adjacent to a caesura, 2 are likely attributive (“*brandishing your sharp, shining weapons*” RV 10.116.5, “*blazing tongue*” RV 4.7.10). 2 are secondary predicates, including example (7) above and RV 4.23.7. Of those occurrences in line/sentence-final position, 2 appear to have secondary predication readings. Of those occurrences which are line-initial, readings appear ambiguous.

4 Non-Metrical Secondary Predicates in Vedic Sanskrit and Ancient Greek

The evidence from metrical texts in Section 3 demonstrates that Vedic Sanskrit and Homeric Greek isolate secondary predicates prosodically. I have proposed that this indicates that they are prosodically marked, following the conclusions of Hale and Kisko 2021. Outside of metrical texts, evidence from prose supports this hypothesis:

- (13) hē dè Milēsía hē neōtéra
 DET.NOM.SG and Milesian.NOM.SG DET.NOM.SG younger.NOM.SG
 lēphtheīsa hupò tōn amphì basiléa ekpheúgei
 seize.PTCP.AOR.PASS.SG by they.GEN.PL with king.ACC.SG escape.3SG.NPST.ACT
 gumnè pròs tōn Hellénōn
 naked.NOM.SG to they.GEN.PL Greek.GEN.PL
 ‘...And the younger Milesian woman, seized by those with the king, escaped **naked** to the
 Greeks...’ (An 1.10.3)¹⁴

The syntax in (13) is consistent with a secondary predicate reading—the relevant adjective functioning as a secondary predicate (*gumnè* ‘naked’) is stranded from its head noun by a participial phrase and follows the finite matrix verb. If *gumnè* ‘naked’ were attributive, its distribution would match the attributive adjective *neōtéra* ‘younger’: it would precede the finite lexical verb *ekpheúgei* ‘escape’ and remain within the scope of its head noun *Milēsía* ‘Milesian’. Although metrical texts are necessary to prove prosodic markedness, the syntactic differentiation between the attributive and secondary predicate adjectives in this line is compatible with the hypothesis that secondary predicates are extraposed to a distinct intonation phrase (*ι*) that correlates to prosodic markedness. The intonation phrase within which the finite lexical verb is contained ends with that verb, and the extraposed secondary predicate intonation phrase follows it. Likewise, data from Vedic prose supports this:

- (14) aindrām carúm nírvaṇet paśúkāmaḥ
 Indra.ACC.SG.ADJ pot.ACC.SG offer.3SG.OPT desirous.of.cattle.NOM.SG
 ‘He_i should offer a pot to Indra (lit. Indra-pot), desiring cattle_i...’ (TS 2.2.7.1)

¹⁴This Xenophon data was brought to my attention by Mark Hale, and discussions with Timothy Hampshire and William Edwards greatly aided my analysis. I am thankful for their insight.

- (15) te vai yūpam evāvindann avācīnāgram
 they.NOM.PL indeed post.ACC.SG only+find.3PL.IPFV having.its.peak.downward.ACC.SG
 nimitam
 sunk.down.ACC.SG
 ‘They indeed discover only a post_i, sunk down with its peak downward_i...’ (AB 2.1.1)
- (16) tad yad yūpa ūrdhvo nimīyate
 that because post.NOM.SG upright.NOM.SG sunk.down.3SG.NPST.PASS
 ‘...That (is) because the post was sunk down upright...’ (AB 2.1.2)

In (14), the post-verbal subject-oriented depictive modifies the null third person subject of the primary predicate. Given that Vedic prose is fairly rigidly verb-final (Hock 1984, 1997, 2013), this position is significant. In (15), the object-oriented depictive is similarly post-verbal, defying the expected verb-final distribution. I hold that the post-verbal position of secondary predicates in (14-15) indicates that the secondary predicate occupies its own intonation phrase (*t*) in the prosodic parse, while the primary predicate intonation phrase ends with the expected clause-final verb.

The resultative in (16) is pre-verbal. However, a secondary predication reading is likely given that adjectives are preposed to their head nouns in Vedic prose (Hock 1997). Like the secondary predicates in (14-15), the distribution of the secondary predicate in (16) is unexpected and is therefore compatible with a prosodic markedness analysis.

It follows from data (13-16) that secondary predicates in Vedic Sanskrit and Ancient Greek were prosodically marked, and that prosodic markedness was an available strategy which distinguished secondary predicates from attributive structures in these languages both within and outside of metrical texts. Space prevents a full discussion of prose text behavior; this topic is the subject of forthcoming research.

5 Conclusion

Cross-linguistically, secondary predicates can be distinguished from other modification structures via prosodic markedness. This prosodic markedness reflects the status of secondary predicates as elements which can project to intonation phrases. Assuming that the default relationship between syntactic representations and prosodic structure is one of identity, the clause-like boundary indicated by the prosodic parse in e.g. Serbian and Mod. Irish reflects their syntactic and semantic complexity.

Metrical corpora can encode prosodically marked elements by means of isolation strategies. The *R̥gVeda* and the Homeric poems demonstrate this: secondary predicates are prosodically isolated, while attributive structures are not obligatorily treated with such strategies. That secondary predicates are subjected to prosodic isolation indicates that the prosodic parse of such constructions in Vedic and Ancient Greek resembles that of other languages which mark secondary predicates with special prosody. The treatment of secondary predicates in these ancient languages across the board therefore includes prosodic markedness, reflecting complex syntactic-semantic structure.

References

- Bruening, Benjamin. 2018. Depictive secondary predicates and small clause approaches to argument structure. *Linguistic Inquiry* 49:537–559.
- Elfner, Emily. 2012. Syntax-Prosody Interactions in Irish. Doctoral dissertation, University of Massachusetts Amherst.
- Féry, Caroline. 2015. Extraposition and prosodic monsters in German. In *Explicit and Implicit Prosody in Sentence Processing: Studies in Honor of Janet Dean Fodor*, ed. L. Frazier and E. Gibson, 11–37. Heidelberg: Springer.
- Gumiel-Molina, Silvia, Norberto Moreno-Quibén, and Isabel Pérez-Jiménez. 2015. Depictive secondary predicates in Spanish and the relative/absolute distinction. In *Romance Linguistics 2013: Selected Papers from the 43rd Linguistic Symposium on Romance Languages (LSRL)*, ed. I.L. Montoya C. Tortora, M. den Dikken and T. O’Neill, 139–157.

- Guzzo, Natália Brambatti, and Heather Goad. 2017. Overriding default interpretations through prosody: depictive predicates in Brazilian Portuguese. *Proceedings of the Linguistic Society of America* 2:1–15.
- Hale, Mark, and Madelyn Kisson. 2021. On the syntax of comparative clauses in Vedic Sanskrit... like someone eating the foam off the water. *Trends in South Asian Linguistics* 367:1–22.
- Hayes, Bruce. 1989. The prosodic hierarchy in meter. *Phonetics and Phonology* 1:201–260.
- Hellwig, Oliver, Heinrich Hettrich, Ashutosh Modi, and Manfred Pinkal. 2018. Multi-layer annotation of the Rigveda. In *Proceedings of the Eleventh International Conference on Language Resources and Evaluation (LREC 2018)*, ed. C. Cieri, T. Declerck, S. Goggi, K. Hasida, H. Isahara, B. Maegaard, J. Mariani, H. Mazo, A. Moreno, J. Odijk, S. Piperidis, N. Calzolari, K. Choukri, and T. Tokunaga, 70–75.
- Hock, Hans Henrich. 1984. Rig-vedic convergence of Indo-Aryan with Dravidian? Another look at the evidence. *Studies in the Linguistic Sciences* 14:89–108.
- Hock, Hans Henrich. 1997. Chronology or genre? Problems in Vedic syntax. In *Inside the Texts—Beyond the Texts: New Approaches to the Study of the Vedas*, ed. M. Witzel, 103–126.
- Hock, Hans Henrich. 2013. Some issues in Sanskrit syntax. In *Proceedings of the Seminar on Sanskrit Syntax and Discourse Structures*, ed. P. Scharf, 13–15.
- Irimia, Monica-Alexandrina. 2012. Secondary Predication. Doctoral dissertation, University of Toronto.
- Ito, Junko, and Armin Mester. 2013. Prosodic subcategories in Japanese. *Lingua* 124:20–40.
- Jamison, Stephanie W., and Joel P. Brereton. 2014. *The Rigveda: the Earliest Religious Poetry of India*, volume 1. New York: Oxford University Press.
- Kratzer, Angelika. 2005. Building resultatives. In *Event Arguments: Foundations and Applications*, ed. C. Maienborn and A. Wöllstein, 177–212. Berlin, Boston: Max Niemeyer Verlag.
- Milway, Dan A. 2019. Explaining the Resultative Parameter. Doctoral dissertation, University of Toronto.
- Monro, David Binning. 1891. *A Grammar of the Homeric Dialect*. Oxford: Clarendon Press.
- Nespor, Marina, and Irene Vogel. 1986. *Prosodic Phonology*. Dordrecht: Foris Publications.
- Potsdam, Eric. 2022. Malagasy extraposition: Evidence for PF movement. *Natural Language & Linguistic Theory* 40:195–237.
- Pylkkänen, Liina. 2008. *Introducing Arguments*, volume 49. Cambridge: MIT Press.
- Ramchand, Gillian. 2008. *Verb Meaning and the Lexicon: A First-Phase Syntax*, volume 116. Cambridge: Cambridge University Press.
- Schultze-Berndt, Eva, and Nikolaus P. Himmelmann. 2004. Depictive secondary predicates in crosslinguistic perspective. *Linguistic Typology* 8:59–131.
- Selkirk, Elisabeth. 1974. French liaison and the x notation. *Linguistic Inquiry* 5:573–590.
- Selkirk, Elisabeth. 1980. The role of prosodic categories in English word stress. *Linguistic Inquiry* 11:563–605.
- Selkirk, Elisabeth. 1986. On derived domains in sentence phonology. *Phonology* 3:371–405.
- Selkirk, Elisabeth. 1996. The prosodic structure of function words. In *Signal to Syntax: Bootstrapping from Speech to Grammar in Early Acquisition*, ed. J.L. Morgan and K. Demuth, 187–213. New Jersey: Lawrence Erlbaum Associates.
- Selkirk, Elisabeth. 2011. The syntax-phonology interface. In *The Handbook of Phonological Theory*, ed. J. Riggle, J. Goldsmith, and A. Yu, 435–484. Oxford: Blackwell Publishing.
- Winkler, Susanne. 1997. *Focus and Secondary Predication*. Berlin: Mouton de Gruyter.

Department of Linguistics
 Harvard University
 Cambridge, MA 02138
 acaso@fas.harvard.edu