Wackernagel in the Language of the Rigveda. A Reassessment

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Abstract

In this paper I discuss several models of Wackernagel cliticization in the language of the Rigveda. Following a short overview of Rigvedic syntax I argue for a discourse functional slot in the left periphery. I show that Hale (1987) and (1996) can be falsified and that Krisch (1990) and Hock (1996) suffer from major drawbacks. In my own account I argue for a prosodic approach, in which WL2 clitics are hosted by the first phonological word in a sentence and WL1 clitics by the first phonological phrase. This phrase corresponds to the left periphery in the syntactic structure, which is obligatory in the language of the Rigveda. Using WL1 clitics as a diagnostic tool for determining syntactic structure, I show that Wh-subjects belong to the left periphery. Concerning the syntactic status of infinitive phrases, I demonstrate that rationale clauses are CPs, whereas all other types of embedded infinitive phrases are not.

1 Introduction

Wackernagel's Law (henceforth WL) enclitics are morphological words that cannot carry stress and are prosodically hosted by a stress-bearing element to their left.[1] Wackernagel enclitics are distinguishable from other clitic types by the fact that they always occupy the second position within a sentence. Examples like the following from Bosnian/Croatian/Serbian (BCS) show that second position can be defined with regard to constituents (1a) or words (1b):[2]

(1) a. Taj čovek *joj ga je* poklonio.
         this man   her it AUX presented

         This man presented it to her.

     b. Taj *joj ga je* čovek poklonio.

The aim of this paper is to take a new look at WL clitics in the language of the Rigveda. As at least one of the WL clitic types of Vedic is sensitive to structure, I will first give an overview of those features of Vedic syntax that might be relevant for clitic placement. Afterwards I will review the proposals made by Hale (1987), (1996), Krisch (1990), and Hock (1996). I will then present my own account of WL clitics in Vedic and discuss its consequences. Finally, I will demonstrate how WL clitics can be used as diagnostic tools for investigations into Vedic sentence structure.

2 The core data

In his famous 1892 paper, Wackernagel, working primarily with Greek data, discussed four phenomena that are related by the fact that a syntactic object – be it a particle, a pronoun, or a verb – occupies the second position in a sentence. Wackernagel's data comprise examples of what were later called WL1, WL2, WL3 clitics, and verbs in V2-configurations.

As already observed by Delbrück (1878:47), the phenomena described later by Wackernagel also exist in Vedic. In the following part I will give a short overview of the main data.

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[1] This paper grew out of a talk given in Göttingen in May 2008. I would like to thank the audience, especially Regine Eckardt and Hildegard Farke, for the stimulating discussion.

[2] The data in (1), (2) are taken from Halpern (1998:111). For a survey of WL phenomena in the Slavic languages cf. Franks & King (2000), Anderson (2000); for a syntactic approach to the examples given cf. Bošković (2004).

2.1 WL1 clitics

WL1 clitics are enclitics that typically occupy second position in a sentence:[3]

(2) váriṣṭʰo   *asya*$_{\text{WL1}}$ dákṣiṇām   iyarti=índro   magʰónām
    broadest.NOM his   gift of honour.ACC drives Indra.NOM generous.GEN.PL.
    tuvikūrmítamaḥ
    most vigorously budging.NOM
    Being the broadest, Indra sets his gift of honour into motion, the one of the generous who budges most vigorously. 6.37.4

However, matters become more complicated in sentences containing Wh-words, as in these cases WL1 clitics always follow the Wh-word, even if it is preceded by another word:

(3) índraḥ   kím *asya*$_{\text{WL1}}$ sakʰᵢyé   cakāra
    Indra.NOM what its   friendship.LOC has done
    What has Indra done in its friendship? 6.27.1

These data are remarkable since the clitics seem to be hosted neither by a single word nor by a constituent (as in the BCS examples), but by a sequence of two discrete constituents.

2.2 WL2 clitics

WL2 clitics exhibit a less complicated pattern. They always occupy the position after the first word of a sentence, be it a word fronted for discourse functional reasons (4) or a Wh-word (5):

(4) uraú   *vā*$_{\text{WL2}}$ yé   antárikṣe mádanti
    wide.LOC or   who.NOMPL air.LOC   take delight
    . . . or who take delight in the wide air. 3.6.8

(5) kéna   *vā*$_{\text{WL2}}$ *te*$_{\text{WL1}}$ mánasā   dāśema
    which.INSTR or   you   intention.INSTR we should worship
    Or with which intention should we worship you? 1.76.1

(4) illustrates the fact that WL2 clitics are not sensitive to the occurrence of Wh-words in a sentence, and (5) shows that they precede WL1 clitics.

Theoretically, WL2 clitics can be hosted both by syntactic heads (X^0) or by prosodic words. In the first case, they would have to be treated as affixes, whereas in the second case they are true clitics. However, a series of tests developed by Zwicky & Pullum (1983:503-4) to determine clitichood are all passed by the Vedic WL2 clitics.

WL2 clitics never select their hosts, and there are no arbitrary gaps in the set of combinations of host plus WL2 clitic. Hosts are phonologically unaffected by WL2 clitics, and the clitics themselves have no allomorphs triggered by certain hosts. In Vedic no syntactic operation exists which treats a host plus WL2 clitic as a unit. Finally, WL2 clitics attach to material already containing clitics. Cf.

(6) índraś   *cid*$_{\text{WL3}}$ *gʰā*$_{\text{WL2}}$ tád   abravīt
    Indra.NOM PTL   PTL   this.ACC said
    Even Indra did say this. 8.33.17

Further evidence against affixation comes from stress assignment: WL2 clitics never influence the stress placement within their host. This observation is not decisive for Vedic, a language with morphological stress and unaccented affixes. However, Classical Sanskrit has a metrical stress system computing stress from right to left. Suffixes are always part of the domain in which stress is computed. WL2 clitics, however, do not influence stress assignment. Considering the facts established in this paragraph, it is safe to assume that WL2 clitics are true clitics hosted by prosodic words.

WL2 clitics are special clitics in the sense of Zwicky (1977), Zwicky & Pullum (1983). Corresponding full forms do not exist, and the clitics are positionally restricted when compared to accented particles

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[3]In some cases, the positioning of WL1 clitics clearly deviates from the standard pattern. As I am concerned with WL proper in this paper, the exceptions will not be dealt with here. Another issue not to be addressed in this paper is the internal structure of clitic clusters in Vedic. See Insler (1997).

and connectives. As outlined above, WL2 clitics always occupy the position after the first prosodic word in a sentence, be it embedded (as in (4)) or a matrix clause (as in (5)). As WL2 clitization is prosodic, the domain for WL2 placement can be identified with the intonational phrase (I) as the prosodic domain corresponding to CP.[4]

2.3 WL3 clitics

WL3 clitics are always hosted by the word or constituent they take scope over. This placement is necessary due to recoverability issues, as they typically mark the information-structural role of their host. They often occur in second position in a sentence simply because their host is sentence-initial.[5] Krisch (1990:65) therefore rightly separates WL3 from WL proper:

(7) áśmānaṃ cid_{WL3} yé bibʰidúr vácobʰiḥ
     stone   PTL   who crushed words.INSTR

     . . . who crushed even stone with words. 4.16.6

In (7) *cid* marks the preceding *áśmānam* as focus and occupies second position in the sentence because its host fills the discourse functional slot in the left periphery of the Vedic sentence.[6]

WL3 clitics are simple clitics in the sense of Zwicky (1977). Using the tests from Zwicky & Pullum (1983) mentioned above, it can be shown that their host is prosodic.

2.4 V2

Various dislocation phenomena such as heavy NP shift may lead to surface linearizations in which the verb occupies second position in the sentence. V2 based on verb movement can therefore best be illustrated by simple examples from prose texts, where there are no other types of movement to obscure the picture. Cf. the following examples from the Śatapatʰabrāhmaṇa, (8) with the verb in second position after a sentence-initial particle, and (9) with the verb in its base position:

(8) sá   ha$_{WL2}$=$uv\bar{a}ca$ gā́rgyaḥ . . .
     PTL PTL spoke   Gārgya

     Gārgya spoke . . . ŚB 14.5.1.2–14.5.1.13

(9) sá   ha$_{WL2}$=agnír uvāca . . .
     PTL PTL Agni   spoke

     Agni spoke . . . ŚB 1.6.3.20

Main clause verbs in Vedic are always unaccented exept when initial in their domain. The prosodic status of verbs in second position, then, cannot be taken as evidence for real enclisis. The fronting of verbs in Vedic has a discourse grammatical function: Initial verbs as well as verbs in second position are claimed to mark cohesion (Dressler (1969), Krisch (2002)) in Vedic. (8) illustrates this point, as the phrase is used to introduce each consecutive section of a speech held by Gārgya which began in 14.5.1.1. To sum up, the dislocation of the verb does not simply constitute a prosodic effect, but serves as a grammatical marker.[7]

This short overview shows that only WL1 and WL2 clitics are proper WL enclitics. WL3 clitics follow the syntactic object they have scope over. Thus their surfacing in second position is a mere coincidence. The placement of verbs in second position is not triggered by prosodic necessities at all, but by discourse grammar. In this paper I will therefore limit myself to WL1 and WL2 clitics.

3   Some remarks on Vedic syntax

Before analysing WL phenomena I will first give a short overview of some features of Vedic syntax that are relevant to the placement of WL clitics.

The basic word order is SOV (Delbrück (1888:17-18)). As departures from SOV follow a regular pattern, I will assume that Vedic is a configurational language.[8]

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[4]On I see Nespor & Vogel (2007:187ff.).
[5]Cf. Hale (1987:45).
[6]On this slot cf. p.3.
[7]For similar arguments against taking V2 as a WL phenomenon, cf. Kiparsky (1995:159).
[8]Cf. Kiparsky (1995) and Krisch (1998).

Wh-words are dislocated to the left.[9] Assuming X′-structure, I will follow Rizzi (1996) and identify their position with [Spec,CP]. Evidence from sentences with Wh-words and other left-dislocated material shows that relative and interrogative pronouns are moved to the same position in the C-system.[10]

Some constituents may be dislocated to the right. These may either be heavy XPs or constituents that amplify the sentence in the sense of Gonda (1959) and Krisch (1997). Although the concept of an amplified sentence intuitively makes sense, the exact reasons for and constraints on right dislocation remain to be established. Furthermore, the concept itself is ill-defined, which leads Krisch (1997:304) to the rather unexpected claim that overt referential subjects are amplifiers, as the subject is already expressed in the verbal morphology. Putting aside these problems for the time being, I will assume that right dislocation is an important trait of Vedic syntax.

Vedic has latent subjects and objects (so-called small pro), both of which can be used anaphorically. Cf. Keydana (2009).

The only point I will dwell upon here is the placement of discourse prominent items in the left periphery, as it has important consequences for the theory of clitic placement given below. I assume that Vedic has a discourse functional slot (henceforth Df-slot) to the left of [Spec,CP].[11] This slot is usually filled with only one word.[12] As examples like (3) above show, a filled Df-position may coexist with a left-dislocated Wh-word. The Df-slot, therefore, has to be distinct from [Spec,CP].[13] Two analyses are possible: (1) The Df-slot might be a second specifier position in the C-projection.[14] This approach is problematic for technical reasons, since C^0 would have to check disjunct features, one in each specifier/head relation. (2) Vedic might have had a split-C-system. In this model (based on Rizzi (1997)), a functional head Df^0 takes the CP as a complement and provides a specifier position, to which left-dislocated material is moved. The data discussed here can be interpreted under both analyses. However, as the split-C-hypothesis is less costly in theoretical terms, I will follow it here. It should be noted that the C-system of Vedic differs crucially from the one proposed by Rizzi (1997:288): As data like (13) below show, the Df projection terminates the whole system. Rizzi's assumption that "the topic-focus field [...] will inevitably be 'sandwiched' in between force [i.e. C, G.K.] and finiteness" if taken as a universal, is falsified by the Vedic data. Nonetheless, I propose the following abstract representation of a Vedic sentence with a fully extended left periphery:[15]

(10)
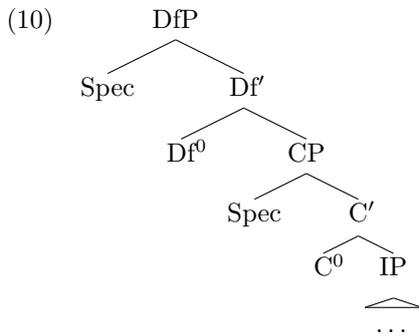
Trying to determine exactly which constituents may be moved to [Spec,Df] brings up serious problems. The genre of the Rigvedic hymns is of a very peculiar nature: They seldom contain full narratives; myths are mostly only alluded to. This makes it nearly impossible to determine the discourse functions of constituents in Vedic verse. Still, some examples with reasonably clear patterns can be found. They show that the Df-slot hosts topics and foci alike. Cf. (11) and (12), both with a filled Df-slot and a Wh-word in [Spec,CP]:

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[9]Cf. Hettrich (1988:546) for relative pronouns, and Etter (1985:66) for interrogative pronouns.

[10]A pattern like that proposed by Rizzi (1997:299) for Italian, where relatives are moved to [Spec,CP], whereas interrogatives surface in [Spec,FocP], cannot be confirmed by the Vedic data.

[11]Cf. Hale (1987), Krisch (1998).

[12]The internal structure of this slot remains a mystery, as in some cases it hosts full NPs. Cf. Hale (1996:170). Even more puzzling is the fact that other cases exist where it is occupied by two words that do not belong to the same constituent. The last of these is always a demonstrative pronoun, the first may be a preverb, the negation, a pronoun or a referential noun. Cf. Hock (1996:218, fn.18). As I am concerned with items following this slot, I will leave the question of its internal structure to further research.

[13]Cf. Hale (1996:168). Krisch frequently mixes them up, cf. Krisch (1998:363) and Krisch (2002:251).

[14]For the introduction of multiple specifiers cf. Chomsky (1995:245).

[15]I will not discuss the possibility of another slot above the IP (the fifth position in the template of Hock (1982) and FocP of Hale (1991)), as it is much more prominent in Vedic prose. On this slot in Rigvedic sentences cf. Hock (1996:217-218).

(11) yát púruṣaṃ ví̯y ádad^{h}uḥ katid^{h}ắ ví̯y àkalpayan / múk^{h}aṃ kím asya kaú

when Puruṣa.ACC apart they laid how often apart they distributed mouth what his what

bāhắ kắ ūrū́ pắdā ucyete

arms what thighs feet are called

When they divided Puruṣa, how many portions did they make? What was called his mouth, what (his) arms, what (his) thighs, (his) feet? 10.90.11

(12) asmắkaṃ yắ íṣavas tắ jayantu

our which arrows these shall win

Let Our arrows win. 10.103.11

Interrogative pronouns correspond to a focalized element in the answer.[16] Thus, the dislocated *múk^{h}am* of (11), which has been introduced into the discourse via the holistic concept of Puruṣa, will most likely be the topic of the sentence. (11) is therefore an example of a topicalized constituent in the left periphery. However, the dislocation of topics is not obligatory in Vedic, as is shown by the two questions following the one discussed here.

The accented personal pronoun in (12), on the other hand, is a rather convincing example of a focalized constituent in the Df-position. Focushood is certainly difficult to establish, but the use of an accented pronoun, which is repeated throughout the verse, clearly indicates some discourse functional status. Focushood is likely, since the participants in the ritual are not salient in the preceding verses. Furthermore, as data from modern languages show, marked pronouns are typically associated with focus. Finally, tests for topichood (Reinhart (1995)) fail.

Sentences with both foci and topics in the left periphery are not attested.

As both the topic in (11) and the focus in (12) occupy the same position in the left periphery before a Wh-word (or complementizer, cf. (13) below), I conclude that the language of the Rigveda had exactly one Df-slot in the left periphery, which could be occupied both by topics and foci[17] and was distinct from the position of Wh-words.[18] Examples with relative pronouns or embedding complementizers show that the Df-slot is also present in subordinate clauses.[19]

Further evidence for this hypothesis comes from (13), another example of a sentence with a focalized element in the left periphery:

(13) nū́ *cid*$_{WL3}$ yát^{h}ā *nah*$_{WL1}$ sak^{h}i̯ắ viyóṣat

never PTL that us friendship he may chase off

. . . so that he may never withdraw his friendship from us. 4.16.20

(13) is remarkable for two reasons: First, it shows that elements in the Df-slot stand in the same linear order relative to complementizers and Wh-words. This is certainly expected under the assumption that Wh-words occupy [Spec,CP]. But (13) allows for another, more interesting observation: If we compare this example with its focalized negation in the Df position to (11), we see that topics and foci behave alike with regard to the placement of WL1 clitics: In both cases, the clitic occupies third position in the sentence. This again confirms our hypothesis that the slot occupied by topics and foci is one and the same.

With these facts about Vedic syntax in mind we can now turn to the proposals made by Hale, Krisch, and Hock on the placement of WL clitics.

4 Hale (1987)

Hale (1987) is the first paper devoted to the study of WL clitics in Vedic within a generative framework.[20] As expected, its main topic is WL1 clitics. Examining data like (3), Hale concludes that "WL clitics take second position *defined before the topicalization*, but after Wh-movement places *ká-* in COMP" (Hale

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[16]Cf. the widely acknowledged analysis of focus by Rooth (1992).

[17]Cf. Hale (1996:169): "It is not *a priori* obvious what in detail the pragmatics of this position are."

[18]This is a necessary deviation from the structure assumed by Kiparsky (1995:153) for Indo-European (and Vedic), who proposes two distinct discourse functional slots: a topic position and a focus-position that – inter alia – could be filled with Wh-words.

[19]Cf. examples (12) and (13) below.

[20]Without distancing himself from his 1987 proposal, Hale offered an alternative account on WL clitics in 1996 (cf. below). Yet his 1987 paper has remained important, as it is very influential to the present day (cf. Krisch (1990)), and Hale's claims have to my knowledge never been tested against Vedic data. On their newly acquired relevance in a minimalist framework see below.

(1987:42)). Hale's analysis rests on two crucial assumptions: (1) Clitic placement is part of the syntax. This is hardly the null hypothesis about prosodically defect objects. Still, it has been rather widespread in generative linguistics since Zwicky (1977).[21] (2) Syntax is derivational. This, too, does not come as a surprise. Still, Hale's analysis is not without difficulties in Government & Binding Theory, as it is rather unclear how the different representational levels before and after topicalization could be integrated into the framework: In classical GB, Surface Structure is derived by applying Move α in one step. It is therefore impossible to derive more than one syntactic representation before Spell Out and after all types of overt syntactic movement have taken place. However, in the light of recent developments of the Minimalist Program, which introduce phases (Chomsky (2001)) and multiple Spell-Out (Uriagereka (1997)), Hale's approach gains plausibility.[22]

Hale's derivational approach is attractive, as WL1 cliticization does not seem to be sensitive to syntactic structure. In a strictly syntactic approach, no non-derivational structural or categorial constraints could be formulated that were descriptively adequate for the types of WL1 placement discussed by Hale (1987). This can be illustrated by the following abstract example of an SOV sentence:[23]

(14) a. S $asya_{\text{WL1}}$ O V [$_{\text{AdvP}}$ ...t ...]

b. pro$_{\text{Subj}}$ O $asya_{\text{WL1}}$ V [$_{\text{AdvP}}$ ...t ...]

c. pro$_{\text{Subj}}$ pro$_{\text{Obj}}$ V $asya_{\text{WL1}}$ [$_{\text{AdvP}}$ ...t ...]

Depending on the way arguments in this simple SOV sentence are realized, a clitic base-generated in an adverbial phrase to the right of the verb may surface adjacent to the subject, the object, or even the verb.

Before looking at Hale's proposal in detail, a short glance at his treatment of WL2 clitics is called for: Hale (1987) is interested in WL2 clitics only insofar as they differ from WL1. On p.44 he observes that "[i]n some forty instances [i.e. tokens of a type different from the WL1 clitics, G.K.] we find Wackernagel's law clitics taking second position after the topicalized element." In other words, they always move after topicalization according to Hale. Cf. (4) above.

Hale's model leads to clear predictions for clitic placement in Vedic: If the Df-slot is filled, any WL1 clitic will occupy third position in the sentence, since it is placed in second position before topicalization. If, on the other hand, the Df-slot is empty (or rather if there is none), any WL1 clitic will occupy second position. Finally, WL 2 clitics always occupy second position. These predictions can easily be validated. While the last prediction holds true, the first one is falsified by the data: WL1 clitics occupy third position only when the filled Df-slot is followed by a Wh-word (as in (3)). In cases with a filled Df-slot, but without a complementizer or Wh-word, they actually occupy second position. Cf. the following example with an accented pronoun in the Df-slot:

(15) ásunvantaṃ   samaṃ   jahi   dūnā́śam   yó ná te máyaḥ /
      not pressing.ACC whoever.ACC kill.IPV scarcely accessible.ACC who not you joy

      asmábʰyam $asya_{\text{WL1}}$ védanaṃ   daddʰí
      us   his   possession.ACC give

      Kill everybody who does not press [soma], the scarcely accessible, who is not your joy. Give his possession to us! 1.176.4

Asmábʰyam is contrastive focus: The concept of the worshippers was not salient in the sentences before and is contrasted with that of the *ásunvant-*. This information-structural status is formally marked by using the accented pronoun and placing it in the Df-slot. (15) is therefore a clear counterexample to Hale's prediction, as – in Hale's terminology – the clitic should have moved before topicalization (or movement to the Df-slot) has taken place. Another counterexample is constituted by (16):

(16) dyaúś   cid$_{\text{WL3}}$ $asya_{\text{WL1}}$=ámavām̐   áheḥ   svanā́d   áyoyavīd
      heaven.NOM PTL   of him having the power to attack serpent.GEN noise.ABL flinched

      bʰiyásā
      fear.INSTR

      Even heaven, who has the power to attack, flinched for fear of the noise of him, the serpent. 1.52.10

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[21] For an alternative see p.8 below.

[22] Cf. Franks & Bošković (2001) and Franks (2008), who analyse Slavic clitics in this spirit.

[23] Since a structural constraint on WL1 clitics adjacent to elements in the Df-slot is trivial, I will ignore the Df-slot in this example.

In this example, the Df-slot is again filled with a focalized element. Even though a sentence-initial subject does not *per se* indicate that the left periphery is filled, the enclitic focus marker *cid* clearly reveals its discourse function. Further examples (such as (2)) abound in the corpus. Thus, we may conclude that the most important claim of Hale (1987) is falsified: The placement of WL1 clitics does not take place before topicalization. In fact, WL1 in third place is restricted to cases where a filled Df-slot and a Wh-word co-occur. Elsewhere, WL1 clitics occupy second position. To sum up, the derivational syntactic approach is clearly not supported by the data.

5 Krisch (1990)

A second influential proposal is that of Krisch (1990), (1997). Krisch explicitly refers to Hale (1987); however, he approaches WL cliticization from a completely different angle: Without arguing for the need to deviate from Hale's model and obviously unaware of its shortcomings, he takes two types of syntactic configurations as a starting point, which he calles "Schemata" or, in Krisch (1997), (2002), "Satzbaupläne": Type 1 comes in two avatāras:

(17) a. # X(E) ....#
      b. # C(E) ....#

This type deals with all those cases where a WL clitic occupies second position in the sentence, either after some element in the Df-position, or after some element in C or [Spec,CP]. As can easily be seen, WL1 and WL2 clitics behave alike relative to this "Schema".
     The second configuration is as follows:

(18) # X(-C_1 = E_1) C_2(-E_2) ....#

This applies to cases such as (3). The "Schema" predicts that in such configurations the first clitic slot can only be filled by complementizers, whereas the second one is not restricted. If we accept, for the sake of the argument, that WL2 clitics are actually complementizers, Krisch's model covers the same data as that of Hale (1987). As a matter of fact, it can even deal with data like (15) and (16). Adding yet another "Schema" for cases like (5), we may turn it into a model with full descriptive adequacy:

(19) # X E_1 E_2

Nonetheless, Krisch's proposal runs into serious difficulties, when looked at more closely. The main problem is that Krisch never actually explains what his template-like "Schemata" are supposed to be: Are they constructions? If so, which factors trigger their use? The only answer I see is the existence of one or more WL clitics in the array the derivation starts with. But then the burden of choice lies with the clitics themselves: A clitic pronoun induces type 1 as long as there is no complementizer in the sentence. If there is one, it induces type 2 and surfaces in slot E_2, whereas a clitic "complementizer" surfaces in slot E_1. Again, the linearization follows from the clitic type. In other words: In addition to discerning different constructions, Krisch still has to distinguish different types of clitics.
     Another problem that follows immediately from taking syntactic configurations as a starting point is the fact that the E-position in type 1 is indifferent to the type of clitic, whereas the same position in type 2 is not: We thus lose Hale's intuitively plausible generalization that both clitic types behave fundamentally differently, without gaining a new one.
     A last, minor, problem that has already been alluded to is the fact that, according to type 2, sentences with two complementizers are licensed in Vedic. This could easily be amended by addressing WL2 clitics as sentence connectives and thereby distinguishing them from complementizers. Yet, as the problem of the ontological status of the "Schemata" remains, Krisch's model does not improve on that of Hale (1987).

6 Hale (1996)

Hale (1996) is an answer to a series of papers by Hock. However, since Hale puts forth another syntactic approach to WL1 in his paper, it will be dealt with here before turning to Hock. In this paper, Hale does not rely on rule ordering any longer, taking up ideas that go back to Sadock's work on incorporation (Sadock (1985)) and that were introduced to the study of clitics by Halpern (1992). Hale (1996) develops the following picture: WL1 clitics are syntactic objects that undergo movement to C^0. This syntactic

peculiarity, which Hale (1996:192) simply stipulates, is complemented by a prosodic one: Being clitics, the moved syntactic objects need a prosodic host. As long as the syntactic derivation leads to a configuration in which the WL1 clitic is preceded by (at least) one prosodic word at PF, the prosodic constraint is satisfied trivially and nothing else happens. But in sentences without a filled [Spec,CP]-position or a TopP above C^0, a repair strategy of prosodic inversion comes into play, which moves the WL1 clitic to second position at PF.

Relying on two different driving forces for the placement of WL1 clitics, this model is certainly less elegant than the 1987 version. Nonetheless it is superior, as it is descriptively adequate. However, it suffers from the fact that some rather complicated machinery is needed: In WL1 clitics two distinct qualities interact. First, they need to undergo movement to C^0 for syntactic reasons, then their phonological make-up forces them to search for a prosodic host to the left.

The phonological part of this process is evident, as WL1 clitics form a prosodic constituent with their host. But the syntactic part of the scenario is mere stipulation, because empirical evidence for movement to C^0 does not exist. This is not merely due to accidental restrictions on what is transmitted in the corpus. Rather, it is a structural problem, since no configuration is possible where syntactic movement of WL1 clitics could be isolated from prosodic phenomena.

Evidence for syntactic movement that cannot be obscured by prosody are binding configurations, where the moved element has to be interpreted in its target position. However, such data do not exist. On the contrary, the few data on Binding Principle A to be found in the corpus give evidence for reconstruction. Cf. once again (2):

(2) váriṣṭʰo $asya_{\text{WL1}}$ dákṣiṇām iyarti=índro magʰónāṃ tuvikūrmítamaḥ

with the underlying syntactic structure (before rightward movement of the heavy NP *índro magʰónāṃ tuvikūrmítamaḥ* and – following Hale for the sake of the argument – movement of the clitic *asya* to C^0):

(2′) váriṣṭʰo índro^i magʰónāṃ tuvikūrmítamo $asya_i$ dákṣiṇām iyarti

In this example the possessive *asya* has a reflexive reading.[24] To be properly bound it must be c-commanded by its antecedent *índraḥ*. This means that it has to be interpreted in the position where it is base-generated. However, reconstruction can be due to A′-movement and movement at PF alike. Binding data like (2), then, do not support syntactic approaches to Vedic WL1 cliticization.

Even the fact that the host of WL1 clitics seems to be some phrasal entity is not sufficient reason for claiming syntactic movement. As will be shown below, it is possible to take the host as a well-defined prosodic phrase.

There is yet another problem with Hale's account: The exact way the clitic moves remains unclear for several reasons. First, Hale leaves open the reasons for movement. On p.192, he simply states that "this syntactic movement is what makes 'special' pronominal clitics 'special'." On p.173, he refers to "the special principles governing the distribution of prosodically deficient elements of the unaccented deictic (or D) class [that] will normally result in these elements being placed immediately *after* (or *in*) C^0", without spelling these principles out. Even more problematic is the assumed target of movement. Hale assumes that WL1 clitics move to C^0. However, C^0 is a head position, whereas the clitics must be fully projected XPs in their base position. This is a well-known problem of syntactic approaches to clitics, which is normally evaded by mere stipulations. Chomsky (1995) and Bošković (2001), for example, simply state that clitics are ambiguous categories that – as non-branching constituents – share XP and X^0 properties.[25] But even if we follow this stipulation, another issue remains: Example (13) shows that WL1 clitics may be hosted by complementizers that head the CP. In these examples the clitic according to Hale's analysis must be "placed immediately *after* C^0", in other words, it must be head-adjoined to the complementizer in C^0. But what happens in cases without a complementizer? Clearly, in order to undergo head-movement the clitic has to adjoin to something, otherwise it cannot move at all. Taking Hale's proposal seriously, we are therefore forced to assume null-complementizers for all cases without overt ones. Thus we end up with three stipulations: Syntactic movement to C^0, as a consequence the ambiguous categorial state of WL1 clitics, and finally the assumption of phonologically empty complementizers. Evidently, this theory is very costly.

However, putting these theoretical issues aside, Hale (1996) also suffers from a severe empirical problem: As (5) shows, WL1 clitics follow prosodic words made up of a host plus a WL2 clitic (here *kéna vā*). The Wh-word *kéna* occupies [Spec,CP]. Th WL1 clitic *te*, then, does not have to undergo prosodic

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[24]On this interpetation of 6.37.4 cf. Geldner (1951:134).

[25]This solution relies heavily on the validity of bare phrase structure, and even in this framework it is dependent on somehow doing away with the head movement constraint.

inversion. To satisfy its prosodic requirements, it simply attaches prosodically to its host. But if we follow Hale in taking WL2 cliticization to be a prosodic phenomenon (Hale (1996:174)), we would expect the opposite sequence of clitics, as syntactic movement and the formation of prosodic constituents precede prosodic movement.[26]

I therefore conclude that for both theoretical and empirical reasons, syntactic movement can hardly be the preferred analysis for Vedic WL cliticization.[27]

7   Hock (1996)

In a series of papers (Hock (1982), (1989), (1992), (1996)) Hock advocates a templatic approach to clitics in Vedic. His starting point is the observation that languages with more than one WL clitic normally show strict linearization patterns within clitic clusters. Since Perlmutter (1971) it has often been assumed that these linearizations are derived from underlying prosodic string templates. Typical examples of languages with such clitic-templates are BCS and Pashto (Hock (1992:210-212)).[28] However, while the template as proposed by Perlmutter only deals with the linearization of clitics that are prosodically deficient and supposedly share the same slot in the syntactic structure, Hock's template covers the whole "initial string" of the Vedic sentence, accented and unaccented elements alike. Cf. his template for the language of the Rigveda as given in Hock (1996:219):

$$(20) \quad \text{“NEXUS”} \quad \begin{matrix} 1 & 2 & 3 & 4 & 5 \end{matrix} \\ \left\{ \begin{matrix} \acute{D} \\ \acute{X} \end{matrix} \right\} \quad (P) \quad \left(\begin{matrix} \acute{P} \\ \langle \acute{D} \rangle \end{matrix} \right) \quad (E) \quad (\acute{D})$$

This deviation from Perlmutter is far from trivial. The template in languages like BCS is motivated by the fact that a whole series of elements cluster in one slot. This clustering allows for two theoretical possibilities: The elements in the cluster either form an unordered set or a tuple, the second option being what is attested in natural languages. The sequence within the tuple is then determined by the template. But syntactic objects that do not compete for a place within the WL slot certainly do not take part in forming the tuple. Their placement within the sentence is determined by syntactic structure alone. In other words, templates are only motivated where serialization cannot be determined by other factors. Thus the fact that Hock's template expands to accented material is at best problematic, especially since templates involving accented material are not attested in other languages.

Further problems arise. An obvious one is that the categories within the template are too fuzzy. D́, for example, covers "accented deictic[s] (including demonstrative *tád*, *etád*, relative *yá-*, interrogative *ká-* etc.); in the Rig-Veda this category includes preposition/adverbs" (Hock (1996:215)). Also, all slots within the template except position 1 are optional and permit doubling. As a consequence, Hock's template is far too powerful a device: It may be descriptively adequate, as it covers even the most marginal linearizations found in the corpus, but due to its descriptive might, it lacks explanatory adequacy. An example is the way Hock deals with data like (3) when compared to the following:

(21)   devā́ *no*[WL1] yát^hā sádam íd vr̥d^hé ásan
         gods us   so that always PTL growth.DAT be.SUBJ

         . . . so that the gods may always be for our growth. 1.89.1[29]

Hock proposes that in the standard data with WL1 following the complementizer or Wh-word, the complementizer fills position 3 of the template. For cases like (21), he simply assumes that the complementizer occupies position 5 (Hock (1996:224-225)). This might be an adequate description and justify Hock's statement that "the attested Rig-Vedic patterns [. . .] present no difficulties for my templatic

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[26]This problem would disappear in a representational approach at least to prosody. Yet even in such a scenario, which differs substantially from that of Hale (1996), some devise would be called for to account for the fact that serialization is not arbitrary. Without recourse to a template a stochastic distributon of the two possible sequences would be expected.

[27]As already mentioned, dismissing a syntactic approach to cliticization seems desirable on theoretical grounds, too, since every syntactic modelling runs into serious difficulties. Following a prosodic approach in the sense of Anderson (1993), Anderson (2005), I will not dwell on these issues. Readers interested in the various syntactic approaches may wish to consult works such as Chomsky (1995), Sportiche (1996), Bošković (2001), and Franks (2008).

[28]But cf. the arguments of Bošković (2004) against templates in BCS.

[29]There are three more occurrences of this linearization in the RV, a rather similar one 4 verses later in 1.89.5, and two others in 8.72, verses 6 and 18, both with *utó nv àsya yád* . . . . Contrary to what Hock (1996:218,fn.19) assumes, RV 5.64.6 (*pūṣā́ no yéṣu* . . .) does not belong here, as the relative is a constituent of the embedded sentence, while *pūṣā́ naḥ* belongs to the embedding sentence.

account" (Hock (1996:225)), but one important question remains: The template, understood as a device applied in the generative process, operates on the same input in both cases. How, then, does the grammar decide on when to place the complementizer in position 3 and when in position 5? This decision can hardly be based on stochastics, as the standard cases outnumber the others by far. Optionality is therefore not an option. But how else could we possibly conceive of a generative device that produces such a strange pattern?

A last point, already discussed by Hale (1996:166,fn.3), is of a more theoretical nature: A prosodic template should be applied to a set of elements in the phonological processing of the sentence. However, Hock's template with its optionality and the possibility of doubling is a linear order on abstract categories.

While Hock's solution to the problem of WL clitics in Vedic certainly is descriptively adequate, it runs into serious difficulties when understood as a generative device at PF. On the one hand, it is far too powerful; on the other hand, the way it actually works remains unclear. We may therefore wish to build on Hock's insight that clitic placement is induced by prosody, and at the same time try to restrict the part played by PF to those elements that actually depend on it, i.e. the clitics.

8 A new proposal

In accordance with Ockham's razor, the proposal given in this paper is based on the null hypothesis that clitic placement is a PF phenomenon,[30] while the serialization of all non-clitic syntactic objects in a sentence is a function of syntactic structure.

WL2 clitics are straightforward: As can be seen from data like (4) and (5), they always occupy second position in the sentence, independently of the placement of other clitics and of the syntactic status of their host. Thus the simplest assumption is that WL2 clitics are prosodically deficient words that need a host to their left for reasons of prosodic wellformedness; the host being the first prosodic word of an I, as demonstrated above. As this type of enclisis is a mere linearization effect at PF, it can be modelled without recourse to syntax.[31]

The placement of WL1 clitics is more complicated: They occupy third position when a sentence contains a filled Df-slot plus a Wh-word or complementizer, in all other cases they occupy second position. This behaviour seems to call for case distinction. Hale (1987) proposed two ordered rules, Hale (1996) two distinct features of WL1 clitics, one syntactic, one prosodic; Krisch (1990) and Hock (1996) postulated different templates. Instead of adding a further explanation in the same spirit, I will try to give a unified one.

Data like (15) show that WL1 clitics follow a filled Df-slot. (5) tells us that they also follow Wh-words, or, to be more precise, the prosodic word that is made up of a Wh-word and a WL2 clitic. (3), finally, shows that WL1 clitics follow a Wh-word if it is preceded by a filled Df-slot. What, then, do Df-slots, Wh-words and complexes of Df-slot plus Wh-word have in common? Obviously they all belong to the left periphery, i.e. to that part of the sentence that precedes the IP. Cf. (10) above. Thus we may conclude that WL1 clitics always stand to the right of the left periphery. In other words, their host is phrasal.

Syntactically, the left periphery is constituted by the C-system minus the complement of C^0. As Nespor & Vogel (2007:168) have shown, such a "C[litic Group][32] which contains a head (X) and all Cs on its non-recursive side up to the C that contains another head outside of the maximal projection of X" is the syntactic input for building phonological phrases (ϕ). The host of WL1 clitics, then, is the first ϕ in a given domain. Since WL1 clitics are attested in main clauses and embedded clauses alike, this domain can be identified with the intonational phrase (I).[33] This analysis of the left periphery works with both syntactic analyses of the Vedic left periphery discussed above. Assuming a C-projection with two specifiers, the proposed ϕ is a direct result of the application of the rule for ϕ-construal of Nespor & Vogel (2007). With the split-C-hypothesis as a starting point, a ϕ built on C^0 would be delimited to the left by Df^0. But as discussed by Nespor & Vogel (2007:168-9), not every X^0 is a possible input for ϕ-building. This is especially true for functional heads. Since Df^0 is not only a functional head, but

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[30] As already mentioned in the discussion of Hale (1996), I agree with Hock (1996:263) in claiming that "clitics are intrinsically a prosodic phenomenon" and that "the domain in which they would anchor would naturally be prosodic, too."

[31] This analysis is in accordance with the one given by Hale (1996:174).

[32] The Clitic group is the prosodic category below the phonological phrase in the system of Nespor & Vogel (2007). Clitic groups do not necessarily contain clitics, rather they often coincide with phonological words. See Nespor & Vogel (2007:154-5).

[33] Pending further studies into prosodic domains for phonological processes in Vedic (cf. Selkirk (1980), Kessler (1994)), the assumption of ϕs as defined by Nespor & Vogel (2007) remains unproven. Still, the fact that the prosodic constituent hosting WL1 clitics matches the structural description given by Nespor & Vogel (2007) is striking. By the way, it should be noted that ϕs are not expected to have any repercussions in metrics, as they are not domains for intonational patterns.

moreover one which is never filled with lexical material, it is no possible starting point for ϕ-construal. This means that Df^0 is invisible for ϕ-construal. The ϕ built on C^0, then, extends to the left boundary of I.[34]

The following picture of WL clitic placement emerges: (i) WL2 clitics attach to the first prosodic word of an I in a PF operation. (ii) WL1 clitics attach to the first ϕ in an I, again in a PF operation. With this approach we are able to reduce cliticization to what it undoubtedly is, viz. a prosodic phenomenon.

The sensitivity to syntactically induced prosodic structure claimed here for WL1 clitics in Vedic has typological parallels in many languages. Sensitivity to structure can be seen in the BCS data given above in (1a) and (1b). Another probable case in point is object clitics in the Romance languages (Kayne (1975)). The closest parallel, however, to the behaviour of Vedic WL1 clitics can be found in some West Germanic languages like West Flemish (Haegeman (1991)):

(22) Gisteren ee *ze* Marie gekocht.
      yesterday has it Mary bought

      Yesterday Mary has bought it.

(23) da *et* Marie gisteren gekocht eet.
      that it Mary yesterday bought has

      that Mary bought it yesterday.

In (22) the object clitic is hosted by an adverb in a Df-slot, in (23) the host is a complementizer. The generalization here seems to be that the clitics attach to the prefield.[35] Although the prefield of the West Germanic languages differs fundamentally in its make-up from the Vedic left periphery, and even though its border is defined by the finite verb, the behaviour of the clitics seems to be exactly the same as in Vedic.

Coming back to Vedic, a minor issue remains with this analysis: In order to make it work, we have to assume that a filled left periphery is obligatory. Otherwise sentences without hosts for WL1 clitics would exist. Obligatoriness of the left periphery is certainly a stipulation, but not a costly one.[36] Examining the Vedic data, one notices that sentences without an obviously filled Df-slot and/or a Wh-word or complementizer are hard to find in the corpus. Example (24) shows such a simple SOV structure, in which the subject is followed by a WL1 clitic:

(24) gand^{h}arvó   *asya*$_{WL1}$ raśan$\acute{\text{a}}$m agr̥b^{h}ṇāt
      Gand^{h}arva.NOM his   rein.ACC grasped

      The Gandharva grasped his rein. 1.163.2

gand^{h}arváḥ is not marked as topic or focus, and in the context of the hymn the verse belongs to, I see no hint to its discourse functional status. However, this is true for the other discourse referents in the sentence as well. Thus it seems plausible to follow Bresnan (2001:98) in assuming that the subject occupies the Df-position whenever no other syntactic item fills it, simply because the subject is a default topic.[37] Again, the West Germanic languages support this claim. In German, for example, SVO is the default word order in assertive main clauses. The subject surfaces in the prefield as long as no other constituent fills it:[38]

(25) a. Peter hat gestern   das Buch über Enklitika gelesen.
         Peter has yesterday the book about enclitics   read

         Yesterday Peter read the book on enclitics.

      b. Gestern hat Peter das Buch über Enklitika gelesen.

      c. Das Buch über Enklitika hat Peter gestern gelesen.

      d. Gelesen hat Peter das Buch über Enklitika gestern.

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[34]Alternatively one could argue that ϕ-construal stops at the Df^0-boundary, the stray material then being incorporated into the ϕ to its right by restructuring. However, since there is no other evidence for restructuring in Vedic, and since following Nespor & Vogel (2007:173) restructuring of ϕ only affects "a nonbranching ϕ which is the first complement of X on its recursive side", it seems advisable to follow the proposal outlined in the main text.

[35]Haegeman (1991) follows a syntactic approach and assumes that the clitics undergo left adjunction to IP.

[36]An alternative remedy would be possible in an optimality theoretical framework with violable constraints on clitic placement.

[37]This claim should be kept apart from that of Lehmann (1976), who argues for an intrinsic (and diachronic) connection between subjecthood and topichood.

[38]A notable difference between West Germanic and Vedic is that in West Germanic the constraint is syntactic, whereas in Vedic it is prosodic. Cf. below.

Taking the subject as the default topic, we may conclude that in the absence of other constituents marked for some discourse function, the subject always occupies the Df-slot in the left periphery of the Vedic sentence. We are now in a position to amend our remarks on Vedic syntax by claiming that Vedic had an obligatory left periphery.

Observations concerning the sentence conjunction *utá* show that the constraint on Vedic sentence structure which demands a filled left periphery is prosodic. Data from languages like German as well as theoretical considerations strongly suggest that sentence conjunctions form an outer layer above the C-projection.[39] This picture is confirmed by examples like (26), where the word following *utá* hosts the WL1 clitic:

(26) utá syā́   *vā́m*$_{WL1}$ mád^{h}uman   mákṣikārapat
      and yonder.NOM you.PL   sweetness.ACC fly.NOM babbled

      And yonder fly divulged the sweetness to you. 1.119.9[40]

However, this pattern is only attested with pronouns of the stem *tyá-* or *tá-* in second position – a distribution quite similar to the one in the examples with a double-filled Df-slot mentioned above in fn.3. It therefore seems reasonable to assume that the pronoun occupies the Df-slot in (26), as well. In other cases, the clitic is hosted by *utá*:

(27) utá *vā́m*$_{WL1}$ uṣáso   bud^{h}í   sākám   sū́ryasya raśmib^{h}iḥ / sutó
      and you.PL   dawn.GEN awakening.LOC at the same time sun.GEN rays.INSTR   pressed
      mitrā́ya   váruṇāya   pītáye
      Mitra.DAT Varuṇa.DAT drinking.DAT

      And he is pressed for you when dawn awakens, at the same time as the rays of the sun, for Mitra and Varuṇa, for drinking. 1.137.2

Utá can also host WL2 clitics:

(28) utá *vā́*$_{WL2}$ yásya   vājíno   ā́'nu   vípram   átakṣata
      and also   which.GEN prize fighter.GEN PREVERB singer.ACC you crafted

      Or which price fighter you endowed with a singer, ... 1.86.3

(28) confirms the picture established for WL2 clitics: Although it does not belong to the CP, the sentence conjunction is still the first prosodic word of *I* and must therefore host the clitic. In (27) *utá* hosts a WL1 clitic, despite not being a part of the C-system. The wellformedness of this sentence, then, reveals that the left periphery constraint cannot operate on syntactic structure. In fact, it is saturated whenever some prosodic phrase precedes the one based on I^0, be it material originating inside the C-system or in an outer layer: In examples like (27), there is no other element in the left periphery besides *utá*, which therefore hosts the clitic. In examples like (26) on the other hand, the left periphery is more complex: It is constituted by the conjunction and a word in the Df-slot. Thus the WL1 clitic surfaces in third position.

9 WL1 clitics as a diagnostic tool

Since WL1 clitics (typically) mark the edge of a prosodic phrase ultimately based on syntactic structure, they may be used to identify the core sentence. Already Krisch (2002:252) states that

> Wenn Wackernagelsche Partikeln da sind, handelt es sich bei dem Teil links davon auf jeden Fall um topikalisierte Elemente.[41]

As a look at Krisch's templates reveals, this claim is too bold for his own account. In his approach, WL1 clitics mark nothing more than the left edge of the sentence in scheme 1 (which is trivial, as sentence boundaries are unambiguous). In scheme 2, they help identify elements in [Spec,CP] or C. This again is trivial, as the complementizers and Wh-words of Vedic are well-known.

The proposal advocated here, however, makes WL1 clitics slightly more versatile as diagnostic tools, as they mark the right boundary of the left periphery. Syntactic elements preceding the clitic are therefore

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[39]See Johannessen (1998).

[40]For more examples cf. Hock (1996:218,fn.18).

[41]When there are Wackernagel particles, the part to the left of them must necessarily be constituted by topicalized elements.

either sentence conjunctions, items in [Spec,CP] or C, or constituents moved to the Df-slot. Since sentence conjunctions, Wh-words, and complementizers each form a closed set, constituents in the Df-slot can always be identified *ex negativo*.

WL1 clitics also aid in diagnosing the syntactic status of Wh-nominatives. Cf. the following examples:

(29) yó   *asya*$_{\text{WL1}}$ śúṣmam   muhukaír íyarti
      who.NOM his   furiousness.ACC instantly drives
      . . . who speeds his furiousness instantly. 4.17.12

(30) kó   *asya*$_{\text{WL1}}$ vīráḥ   sad$^{\text{h}}$amádam   āpa
      which.NOM his   man.NOM companionship in feast.ACC attained
      Which man attained his companionship in the feast? 4.23.2

Both the relative and the interrogative pronoun precede the clitic. As subjects always show up in the Df-slot whenever no other constituent is marked for discourse function, the placement of Wh-subjects in the left periphery comes as no surprise. If Wh-subjects were to fill the Df-slot in the same way as any other subject, sentences with a Wh-subject preceded by a filled Df-slot should not exist, yet they do:

(31) védā yó vīnā́m   padám antárikṣeṇa pátatām
      knows who birds.GEN path   air.INSTR   flying
      Who knows the path of the birds flying through the air, . . . 1.25.7

In this example the relative pronoun *yáḥ* is preceded by the verb *védā*. Thus we may conclude that Wh-subjects occupy the same [Spec,CP]-position as other Wh-words. In this point, then, Vedic again behaves similarly to the West Germanic languages with an obligatory left periphery such as German.

9.1 WL and the syntactic status of InfPs

As discussed in Keydana (2003:77-78), it has until now been impossible to determine the syntactic status of infinitive phrases in Vedic. If our assumption is correct, however, WL1 clitics are always positioned to the left of the IP. Thus it follows that infinitive phrases hosting WL1 clitics must be CPs.[42] If, however, WL1 clitics, which syntactically belong to an infinitive phrase, surface in the left periphery of the embedding sentence, this clitic climbing provides evidence against a CP-analysis. The same holds true for infinitive phrases whose first word hosts a WL1 clitic syntactically belonging to the embedding sentence.

As the categorial status of infinitive phrases probably differs depending on the way they are embedded, I will first examine complements, then rationale clauses, and finally purpose clauses.[43] Sadly, examples fulfilling the requirements are hard to come by. The few data found in the corpus are rather inconclusive.

The following is an example of a complement infinitive phrase with subject control:

(32) śakéma   *tvā́*$_{\text{WL1}}$ samíd$^{\text{h}}$am
      we want to be able you.ACC ignite.INF
      We want to be able to ignite you. 1,94,3

(32) displays clitic climbing: *tvā*, which syntactically belongs to the infinitive phrase, is hosted by the embedding verb *śakéma*. This would be impossible if the embedded infinitive phrase were a CP. In that case it would have its own left periphery (the infinitive moving to the Df-slot), to which the clitic could locally attach.

With object control, the same pattern emerges:

(33) j$_i$yóṅ *naḥ*$_{\text{WL1}}$ sū́ryaṃ dṛśáye rirīhi
      long us   sun.ACC see.INF give.IMPV
      Grant us to see the sun for a long time. 9,91,6

In this example the enclitic *naḥ* is part of the embedding sentence, yet it surfaces after the first word of the embedded infinitive phrase. This again indicates that no CP-boundary interferes between the matrix clause and the infinitive phrase. I therefore conclude that complement infinitive phrases are not CPs.

The data for WL1 clitics and infinitival adjuncts are less compelling. The most notable case for a rationale clause in the corpus is (34):

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[42] Where C may be taken as an abbreviation for some split-C-configuration in the sense of Rizzi (1997).

[43] For the distinction between these two types of adjunct infinitive phrases see Keydana (2003:85ff.).

(34) huvé *vām*WL1 mitrāvaruṇā   sabā́dʰaḥ / prá   *vām*WL1 mánmān₍ᵢ₎y r̥cáse   návāni
      I call you   Mitra and Varuṇa insistently   forward you   hymns.ACC sing.INF new.ACCPL

      I call you, Mitra and Varuṇa, insistently, to sing new hymns to you. 7,61,6

Here, the second enclitic *vām* is hosted by the preverb *prá* in the infinitive phrase. It could be argued that it cannot climb, because the target position in the left periphery of the embedded sentence is already filled with the other *vām*. Still, the fact that the *vām* belonging to the infinitive phrase is hosted by the preverb strongly suggests that the preverb fills the Df-position within the infinitive phrase. This, then, is evidence that rationale clauses in Vedic are CPs.

An example for a purpose clause is (35), where the infinitive phrase is embedded into an NP:

(35) ád̥ʰr̥ṣṭo   *va*WL1 étavā́ astu   pánt̥ʰāḥ
      unassailable you   go.INF shall be path

      The path to go to you shall be unassailable. 10,108,6

In (35) the enclitic is the GOAL of the embedded infinitive *étavái*. Nonetheless, it climbs and surfaces to the right of the adjective *ád̥ʰr̥ṣṭaḥ* in the Df-position of the embedding sentence. Hence the infinitive phrase is not a boundary for the clitic, which means that it cannot be a CP.

The study of Vedic infinitives can hardly contribute to the ongoing debate on the categorial status of the various types of embedded infinitive phrases.[44] However, the behaviour of WL1 clitics in Vedic seems to contradict the classical view expressed e.g. by Chomsky (1981:191) that control infinitives are necessarily CPs. Besides, at least from a strictly empirical point of view, the pattern found in Vedic has a striking parallel in languages like English and Russian. In these languages, rationale clauses are the only infinitive phrases headed by an overt complementizer (*in order (to)/čtoby*) and thus the only ones which are undisputably CPs.

10   Summary

In the first part of this paper I show that the proposals of Hale (1987), (1996), Krisch (1990), and Hock (1996) suffer from various shortcomings. Hale's derivational model of 1987 is obviously not supported by the data. His alternative from 1996 fares better, but it still cannot cope with the interplay of WL1 and WL2 clitics. It also has to rely on the syntactic character of clitic placement, for which empirical evidence cannot be found. Krisch's "Schemata" run into serious ontological problems while, on the other hand, not really improving on Hale (1987). Finally, the prosodic approach offered by Hock (1996) suffers from being too powerful and lacks typological backing.

In the second part I state my own proposal. I argue that WL cliticization is a prosodic phenomenon: WL2 clitics are hosted by the first phonological word of an intonational phrase, WL1 clitics by the first phonological phrase of an intonational phrase. This phrase is linked to the left periphery in the syntactic structure, i.e. to a Df-slot and the [Spec,CP]/C complex. At PF, the left periphery maximally expands to

(36) ⟨Df, WL2, Wh-word/complementizer, WL1⟩,

where the Df-position is typically filled with one word. The underlying syntactic structure is as given in (10) above. The model correctly predicts that WL2 clitics always precede WL1 clitics.

The analysis rests on the hypothesis that the left periphery of the Vedic sentence is obligatorily filled. This assumption is backed by typological arguments on the default status of subjects as topics and the observation that sentences with neither an evident topic or focus nor a Wh-Word or complementizer in the left periphery are extremely rare in the corpus. Evidence from instances with the sentence conjunction *utá* shows that the constraint on Vedic sentences is prosodic in nature.

Using WL1 clitics as a diagnostic tool for determining the boundaries of the left periphery, it can further be shown that Wh-subjects occupy the same slot as other fronted Wh-words. Finally I argue that, taking WL1 clitics as evidence for CPs, we may conclude that the only infinitive phrases to project full CPs are rationale clauses.

This paper is the result of an investigation into the core data for WL clitics and the left periphery. Such a restriction inevitably leads to a somewhat idealized picture which would become more complex and subtle if we took examples with whole constituents in the Df-slot into account. So far, conditions or constraints on the way the Df-slot is filled remain unclear, and WL clitics in the domain of the VP have yet to be studied. These topics merit further research.

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[44]See e.g. Ormazabal (1995), Pesetsky (1995), Bošković (1997), Lasnik (1999), Wurmbrand (2001).

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