

On the PIE “Quasi-Serial Verb” Construction: Origin and Development

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1. Introduction

The focus of this study is a set of syntactic structures whose Indo-European background was first discussed by Calvert Watkins. With characteristic insight, Watkins (1975:95–7) connected Hitt. *ūt ... san(h)* and Hom. Gk. *βάσκ' ἴθι*, viewing both as “manifestations ... of a more global syntactic structure or structures whose character remains to be determined.” I examine this specific sub-type in more detail, arguing that—in addition to Greek and Hittite—Latin, Vedic, and Classical Armenian all reflect syntactic structures that can be traced back to a common source in high-node Proto-Indo-European (PIE), namely, the QUASI-SERIAL VERB construction (pace Hock 2002, 2014).

2. The Indo-European evidence

In several ancient Indo-European languages, we find evidence for an imperatival construction in which two verbs—one a verb of motion (V_1), one semantically unrestricted (V_2)¹—show two crucial properties:

- (i) Both verbs are identically marked for person, tense, and number.
- (ii) Both verbs are monoclausal, as confirmed by prosodic or syntactic evidence.²

Examples of this structure may be found in (1) Latin, (2) Vedic, (3) Greek, (4) Classical Armenian, and (5) Hittite:

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- 1 In this terminology, I follow Pullum 1990 and Zwicky 2012. V_1 and V_2 are equivalent to Hock’s (2014) FIRST and SECOND verbs.
 - 2 I use “monoclausal” in the sense standardly employed in discussion of verb-serializing languages (e.g., Aikhenvald 2006; cf. §2.2 below) to refer to to monopredicative structures involving multiple verbs between which neither subordinate nor coordinate relations obtain. No formal syntactic analysis of these structures is attempted in this study; one possibility is the “restructuring” analysis proposed for Hittite by Koller (2013), but it will be pursued no further here.

- (1) **age abduce** *hasce intro quas mecum adduxi, Stiche.*
Go take these (women) I've brought with me indoors, Stichus. (Pl. *St.* 418)
- (2) *idám te ánnam yújiyam sámukṣitam*
tásyēhi prá dravā píba
 Here is your food, ready for yoking, fully sprinkled:
come run drink of it.³ (RV VIII.4.12cd)
- (3) ἀλλ' ἴθι οἱ νέκταρ τε καὶ ἀμβροσίην ἐρατεινὴν
στάζον ἐνὶ στήθεσσ', ἵνα μὴ μιν λιμὸς ἴκηται.
 But **go pour** nectar and lovely ambrosia into him,
 in (his) breast, so that hunger will not reach him. (*Il.* 19.347–8)
- (4) *ert' c'oyc' zanjn k'o k'ahanayin*
Go show yourself to priest. (Lk. 5.14)
- (5) *ī=war ašta pargamuš HUR.SAG.DIDLI.HI.A-ašaš šāh*
Go search the high mountains. (KUB 17.10 i 24–5)

The prosodic and syntactic factors which support a monoclausal analysis of the structures in (1)–(5) are discussed in detail in §3. To anticipate this discussion, however, the basic nature of this phenomenon is illustrated by the Vedic example in (2); here, the direct object of the imperative *píba* ‘drink!’ (V₂) is the pronoun *tásya*, which appears to the left of both preceding motion verbs (V₁). This surface linear order should not be possible if each verb were to constitute an independent clause, and suggests, rather, that one clause has (somehow) become embedded within the other.

There is also no clear evidence for subordination in this type, as shown for early Vedic by Hock (2002:90–3), who proposes instead that the anomalous syntactic behavior of (2)—as well as (3) in Homeric Greek and examples like (5) in Hittite—is in fact a feature of an inherited construction in which both verbs share a single clause, but are neither subordinate to nor coordinated with one another. These properties lead Hock (2002) to suggest that this inherited construction is, specifically, a PIE SERIAL VERB CONSTRUCTION (SVC).

3 Translation of 12c per Jamison and Brereton (2014), who analyze *éhi* and *prá dravā* in 12d as parenthetical imperatives; for the latter, I present instead the translation of Hock (2002, 2014) (cf. n.15 below).

2.1. *A Proto-Indo-European Serial Verb Construction?*

More recently, Hock (2014) has revisited this hypothesis, reexamining the Vedic, Greek, and Hittite evidence for this construction and developing a more complete account of its prehistory. He argues that an original PIE SVC explains a wide range of phenomena in the attested languages, including but not limited to (1)–(5) above; rather, these examples should be united, first, with “hortative” constructions of the type in (6)–(8):

- (6) *éhi váṃ vimuco napād*
āghṛṇe sáṃ sacāvahai
Come, O child of release,
O glowing one, **let us two accompany each other.** (RV VI.55.1ab)
- (7) ἀλλ' ἔπει Ἀλκαθόωι ἐπαμόνομεν, ὅς σε πάρος γε
But **come along, let us help** Alkathoos, who once (nursed) you (*Il.* 13.465)
- (8) *uwatten*^{URU} *Nēša paiwani*
Come, **let us go** to the city of Nesa. (KBo 22 Ro 15)

In each case, a 2nd person imperative of a verb of motion with deictic-hortative function—i.e., ‘go!’ or ‘come!’—is followed closely by a 1st person dual or plural form with similar hortative modality. Semantically, then, examples (6)–(8) have much in common with the double imperative structures in (1)–(5), which differ only insofar as the second verb obligatorily agrees for person, tense, and number with the first.

In contrast, it is primarily syntactic similarity which motivates Hock (2014) to draw a further connection between (1)–(5) and a small set of Hittite asyndetic expressions, e.g., (9)–(10):

- (9) *nu=wa=za azzikandu akkuškandu*
Let them **eat (and) drink.** (KBo 3.1 Ro 13–4)
- (10) *nu ŪL tarḫuzzi ḫāši*
He (was) unable to open [lit. “is not able-opens”] (it). (KUB 17.10 i 33)

Like (1)–(5), Hittite (9)–(10) contain two verbs which are identically marked for grammatical features, and are characterized by neither overt coordination nor subordination.

Hock (2002, 2014) takes these semantic and syntactic commonalities as evidence for a common prototype and, on the strength of the Vedic, Greek, and Hittite comparanda, therefore reconstructs a PIE SVC as the source of (1)–(10). In §2.2, this claim is examined in more detail; the cross-linguistic properties of SVCs are briefly surveyed in order to assess the appropriateness of this term for the Indo-European constructions in (1)–(10).

2.2. *What is (and is not) a Serial Verb Construction*

The label SERIAL VERB CONSTRUCTION is typically applied to a sequence of verbs which belong to a single clause, describe a single event, and share one set of morphosyntactic features (cf. Aikhenvald 2006:1), e.g., (11)–(12) from Paamese, an Austronesian language spoken on the island of Vanuatu:

- (11) *lahi* *va:* *en valŋeihat*
 3SG:REAL-fetch-3SG 3SG:REAL-go PP cave

She fetched it **to** the cave. (Crowley 2002:69)

- (12) *namual* *nauva:* *en leiai*
 1SG:REAL-walk 1SG:REAL-go PP bush

I walked **to** the bush. (Crowley 2002:71)

The verb *va:* ‘go’ here maps its deictic orientation onto the construction as a whole; by substituting the verb *mai* ‘come’ in either example, this orientation is reversed, and the SVC is interpreted as ablative ‘from’ rather than allative ‘to’.⁴

Strictly applied, this definition poses problems for a number of the examples adduced by Hock (2014), including (6)–(8). As already observed, the verbs in these examples do not exhibit morphosyntactic feature agreement: V_1 is 2nd person singular, while V_2 is 1st dual/plural. Hock’s solution is thus to assume “grammaticalization and/or lexicalization” from an original PIE structure that did manifest all the characteristic features of SVCs. For Hock, it is rather Hittite examples like (9)–(10) which better preserve the original situation—not only syntactically but semantically—freely admitting non-motion verbs in the V_1 slot.

However, the hypothesis of Hock (2014) is not necessary to account for examples like (6)–(9), each of which may be explained using the ordinary machinery of Indo-European syntax. In short, there is no compelling evidence for monoclausality in any examples adduced by Hock except in the double impera-

4 The PP *en(i)* is neutral with respect to spatial deixis (Crowley 2002:70).

tive constructions of the type in (1)–(5) and in isolated Hittite (10).⁵ In the absence of such evidence, (6)–(9) are best understood as simple clausal asyndesis of the familiar Indo-European type.

Hittite (10) must be explained otherwise, since unlike the others it clearly is monoclausal. It is notable, though, that this example resembles the structures in (1)–(5) only in this respect—there is no verb of motion—and is, moreover, almost unique in Hittite from a syntactic perspective: it shows a verb (*tarḫ-*), which normally takes infinitival complements, taking instead a finite verb.⁶ Though this usage is unexpected, Koller (2013:88–9) has proposed an analysis that can account for this behavior in terms of the synchronic principles of Hittite syntax; it may therefore be viewed as a Hittite-internal problem quite separate from the imperatival constructions in (1)–(5).

The remaining question, then, is whether (1)–(5) can be considered SVCs. According to the definition above, such an analysis is plausible: these examples have the properties of both strict grammatical identity of both verbs and—as will be shown in §3—monoclausality. However, this possibility encounters (at least) two serious typological objections.⁷ First, though SVCs involving verbs of motion may be the cross-linguistically most frequent type, rarely (if ever) do productively verb-serializing languages have *only* SVCs with verbs of motion. Moreover, while SVCs occur freely across grammatical categories (person, tense, number, mood, etc.), the Indo-European constructions in (1)–(5) are morphologically restricted to the imperative. Restrictions of this kind constitute grounds for Aikhenvald (2006:45–6) to reject an SVC analysis of “double verb” constructions like the English *go get* construction.

The interim conclusions are thus largely negative: pace Hock (2002, 2014), productive verb serialization cannot be reconstructed for PIE on the basis of the evidence in (1)–(10), nor do (6)–(10) require any such special explanation from the perspective of PIE syntax. Nevertheless, (1)–(5) form a small cohesive class exhibiting SVC-like properties whose aberrant syntactic behavior remains to be explained.

5 Omission of the quotative particle in (9) is non-probative (cf. Hoffner and Melchert 2008:356–7, esp. §28.12–3); for discussion of a single potential exception in Greek see n.17 below.

6 The only other example of this type to my knowledge is KBo 8.15 11–13 *iyazzi zinnāi* “finish-es worshipping,” also discussed by Hock (2014:52). The analysis of Koller (2013:88–9) can be applied to this case as well.

7 Cf. Aikhenvald 2006:45–6, with references.

2.3. *If not SVCs, then what? A new proposal*

The Indo-European constructions are SVC-like, but they are not SVCs; an instructive parallel may therefore be provided by the very case whose SVC status was rejected by Aikhenvald (2006:45–6) on similar grounds, namely, the English *go get* construction—or, as it has been termed by Pullum (1990), the QUASI-SERIAL VERB (QSV) construction.⁸ Synchronically, QSV consists of two monoclausal verbs, the first (V_1) being either ‘come’ or ‘go’ (and for some speakers, ‘run’ or ‘hurry’). Both V_1 and (unrestricted) V_2 must be in the imperative, or else in a form identical to its base—viz., the uninflected form used in the infinitive, subjunctive, and constructions with *do* or modals, as well as the null-inflected non-3rd person singular simple present forms.

This construction is now generally viewed as a colloquialism of American English (cf. *OED* s.v. *go*), yet association with this register must be relatively recent, as QSV has a rich history in English prose and poetry, e.g., (13)–(14):

- (13) Death laughs—**go ponder** o’er the skeleton ... (Byron, *Don Juan*, canto IX 11.1)
- (14) I must **go seek** some dew-drops here. (Shakespeare, *A Midsummer Night’s Dream* 2.1.14)

According to Zwicky (2003, 2012), the restriction of QSV to this particular set of syntagms may be attributed to its imperatival origin; he posits that original sequential imperatives were reanalyzed as single “prosodic, syntactic, and semantic units ... the resulting construction was then extended from the imperative to other uses of the base form, and then to homophonous finite forms” (Zwicky 2003). In §§3–4, I argue for a similar unitary reanalysis of imperatival constructions already in high-node Proto-Indo-European—viz., a PIE QUASI-SERIAL VERB construction—reflected in examples (1)–(5).

3. The syntax and prosody of QSV in Indo-European

It was established in §2 that (1)–(5) are united by a set of shared lexical, morphological, and syntactic properties: V_1 is a verb of motion; V_1 and V_2 are identically marked for morphosyntactic features; and V_1 and V_2 are monoclausal. These properties can now be taken as the definitional requirements of QSV.

8 On English QSV generally, see Zwicky (2012) and Pullum (1990), with references.

While the former two properties are relatively transparent, monoclausality is more difficult to ascertain.⁹ In some cases, there is direct syntactic evidence: an argument of V₂ undergoes movement to the left edge of its clause, and lands to the left not just of V₂ but also V₁. Elsewhere, it is necessary to rely on prosodic evidence, which offers indirect testimony to the syntactic status of V₁ and V₂. The most important such diagnostic is the behavior of so-called “Wackernagel clitics,” which canonically appear after the first prosodic word in their clause; the fact that V₁ functions as a licit host for clitic arguments of V₂ constitutes evidence that the V₁ + V₂ complex is afforded the same prosodic status as a single clause, which in turn suggests that V₁ and V₂ are monoclausal.¹⁰ In some languages, moreover, QSV does not permit the intervention of non-clitic elements between V₁ and V₂, suggesting a type of close nexus between these verbs. This notion is supported, in Latin, by the exceptional treatment of QSV in metrical texts, which provide prosodic information corroborating its unitary status (§3.1).

3.1. Latin

Latin shows clear, if somewhat limited evidence for QSV. Fortson (2008) has identified several compelling Plautine examples including (15)–(16):

(15) - ˘ - ˘ - - - ˘ - ˘ - ˘ - ˘ ×
Quid faciam? :: *Cave respexis, **fuge, operi** caput*
 What am I to do? :: Take care not to look back. Run cover your head. (Pl. *Mos.* 523)

(16) ˘ - - - - - - - - - ˘ ×
***age, abduce** hasce intro quas mecum adduxi, *Stiche**

9 Throughout §3, verbs operative in QSV continue to be marked in boldface; arguments relevant to determining their monoclausal status are underlined.

10 Of particular importance for this study is a fairly standard assumption about the phonology-syntax interface (e.g., Nespov and Vogel 1986 [2007]), namely, that two successive, syntactically independent clauses (CPs) or asyndetically coordinated VPs would be encoded prosodically as two separate constituents—likely, intonational phrases (IPs)—with the result that prosodically deficient clitics positioned syntactically at the left edge of the second must undergo “prosodic inversion” (Garrett 1989, Halpern 1992) in order to have a licit host within their domain. In QSV, however, V₂ clitics are permitted to occupy a position immediately following V₁ either because of its exceptional treatment as a single IP, or because V₁ and V₂ are syntactically monoclausal and the clitic has undergone prosodic inversion from its expected syntactic position to the left of V₁ (cf. §4.1 below).

Go take these (women) I've brought with me indoors, Stichus. (Pl. *St.* 418 = (1))

These two examples indicate that in Latin, as in English, QSV requires strict adjacency, viz., it does not permit intervention of any constituent between V_1 and V_2 , a property which suggests close prosodic unity.¹¹ In the unique case of (15)–(16), moreover, Fortson (2008:37–41, 200) has argued that certain problematic ways in which QSV interacts with established principles of Plautus' metrical verse can be explained by the “special” treatment of QSV as a single prosodic unit¹²—specifically, a domain smaller than the phonological phrase.¹³

Since close prosodic cohesion of this type is excluded under a biclausal analysis,¹⁴ V_1 and V_2 must be monoclausal in (15)–(16), and so consistent with the definitional properties of QSV. Furthermore, these examples show that Latin QSV is subject to certain grammatical and semantic restrictions which—as will become clear in §3.2 and §3.3—also obtain in Vedic and Greek: it occurs only in the 2nd person imperative and V_1 must be a verb of motion. There is no evidence for extension of QSV to other grammatical categories, or for a productive SVC of the type reconstructed for PIE by Hock (2014).

3.2. Vedic

Both prosodic and syntactic evidence support the monoclausality of QSV in Vedic, where the position of clitic and non-clitic arguments associated with V_2 serves as diagnostic for monoclausality (cf. Hock 2002, 2014). In (17)–(18), the nominal object of V_2 —*imām* and *tásya* respectively—precedes the motion verb(s) V_1 , having undergone movement to the left edge of its clause:¹⁵

(17) *sumaṅgalīr iyám vadhūr*
imām saméta páśyata

11 This same pattern is quite frequently observed in productively verb-serializing languages; cf. Aikhenvald 2006:37–8.

12 See Fortson 2008:34–53, 176–216 for details. English QSV in fact exhibits similar “special” metrical behavior in the works of Shakespeare, as demonstrated by Shih (2009).

13 Either the phonological word or the “clitic group” (cf. Nespor and Vogel 1986 [2007]).

14 Cf. n.10 above.

15 For the examples in §3.2, I follow in all essential details the analysis of Hock (2002, 2014), who discusses previous alternative interpretations, and argues for a monoclausal reading. Ultimately, the reconstruction of QSV for PIE does not crucially depend on the weight of the Vedic evidence.

This bride is of good omen.

Together come behold her.¹⁶ (RV X.85.33ab)

- (18) *idám te áannaṃ yújiyaṃ sámukṣitaṃ*
tásya ā ihi prá dravā píba

Here is your food, ready for yoking, fully sprinkled:

come run drink of it. (RV VIII.4.12cd = (2))

Prosody rather than syntax is decisive in (19), where the monoclausality of QSV is clear from the position of the “Wackernagel clitic” *mā*: an argument of V_2 *ā viśa*, it would normally need to undergo a prosodic readjustment in order to have a clause-internal host aligned to its left; in QSV, however, V_1 *éhi* serves as a licit host, suggesting that both V_1 and V_2 belong to the same clause:

- (19) *bhákṣa ā ihi mā ā viśa*

O food, **come enter** me. (TS III.2.5.1)

Although quantitatively better attested than in Latin, Vedic QSV is also grammatically and semantically restricted to the 2nd person imperative with a verb of motion V_1 .

3.3. Greek

With respect to QSV, the situation in Greek essentially parallels Vedic, although at the earliest stage there is only prosodic evidence for monoclausality. QSV in Homeric Greek is guaranteed by a single example, (20),¹⁷ where V_1 *ĩthi* hosts the pronominal clitic *oi*, an argument of V_2 *στάξον*.¹⁸

- (20) ἄλλ' **ĩthi** oi νέκταρ τε καὶ ἀμβροσίην ἐρατεινήν
στάξον ἐνὶ στήθεσσι, ἵνα μή μιν λιμὸς ἴκηται.

16 For an alternative interpretation “together approach her, behold her” see Jamison and Brereton 2014:1524.

17 Hock (2014:50–1) adds a number of Homeric examples involving *ἄγε* which—although historically the 2nd person singular imperative of *ἄγω* ‘bring; take’—regularly functions synchronically as a particle or sentential adverb, especially in frequent collocations like *ἄλλ' ἄγε* (cf. *LSJ* s.v. *ἄγε(τε)*). Given the likelihood that both the real imperative and the particle coexist in Homer, *ἄγε* cannot serve as a reliable diagnostic for QSV. The same objection applies to the Vedic *hánta* construction, which Hock (2014) also takes to reflect a PIE SVC.

18 The interpretation of *oi* as a possessive clitic with *στήθεσσι*—viz., “his breast”—cannot be excluded; the argument for monoclausality nevertheless holds, since its surface “Wackernagel’s position” must be due to the same syntactic movement and prosodic hosting.

But **go pour** nectar and lovely ambrosia into him,
in (his) breast, so that hunger will not reach him. (*Il.* 19.347–8 = (3))

Further evidence for QSV is found in Classical Greek, where Platonic examples such as (21)–(22) may be adduced:

(21) **ἴθι μοι ἔξευρε** καὶ τὰ τοῦ μάντεώς τε καὶ μαντικῆς

Go find out for me also those (which) are of the seer and of the seer’s art ...
(Pl. *Ap.* 538e2–3)

(22) τὸν δὲ δὴ βελτίους ποιοῦντα **ἴθι εἰπέ** καὶ μήνυσον αὐτοῖς τίς ἐστίν.

Go proclaim their improver and reveal to them who he is. (Pl. *Ap.* 24d6–7)

The same prosodic arguments for monoclausality apply to (21) as to the Homeric and Vedic examples in (19) and (20): the clitic argument μοι of V₂ ἔξευρε is hosted by V₁ ἴθι.¹⁹ In (22), the complex DP τὸν ... ποιοῦντα—the object of V₂ εἰπέ—is topicalized and surfaces to the left of V₁ ἴθι.

I have argued elsewhere (Yates 2011 and 2014) for a further, very limited extension of QSV to non-imperative modality in Homeric Greek—specifically, the “transformation” of QSV βάσκ’ ἴθι ⇒ βῆ δ’ ἴμεν(αι);²⁰ yet this isolated case aside, Greek shows the same grammatical and semantic restrictions on QSV as Vedic and Latin.

3.4. Classical Armenian

In Classical Armenian, QSV represents a more productive syntactic type.²¹ Found in both Biblical and non-biblical literature, Armenian QSV shows several features that distinguish it from comparable structures in Vedic and Greek. First, the V₁ slot admits a slightly wider semantic range of verbs—not only intransitive ‘go’ and ‘come’, but also transitive ‘bring’ and ‘take’. Moreover, as in Latin and

19 Goldstein (forthcoming) observes in Herodotus similar clitic behavior in participial constructions with verbs of motion of the type discussed by Watkins (1975:96–7) and undoubtedly related to QSV; in these cases, a “Wackernagel clitic” associated with V₂ is unexpectedly hosted within the V₁ participial phrase, a domain from which it is normally excluded.

20 This process may be reflected in the relationship between, e.g., *Il.* 15.158 βάσκ’ ἴθι ... ἀγγεῖλαι “Go ... bring word” and *Od.* 6.50 βῆ δ’ ἴμεναι ... ἴν’ ἀγγεῖλειε “She set out ... to bring word.”

21 §3.4 in particular has benefited from the thoughtful feedback of Daniel Kölligan, who furnished several of the textual examples, and of Jared Klein, who generously allowed me to see his forthcoming article on Classical Armenian syntax.

English QSV, Armenian QSV requires strict contiguity of V_1 and V_2 .²² Most importantly, in addition to imperatival QSV as in (23), V_1 and V_2 may also be in the indicative. The range of these structures and their properties are illustrated by (23)–(25):

- (23) *ert' c'oyc' zanjn k'o k'ahanayin* (= Gk. ἀπελθὼν δεῖξον σεαυτόν)
Go show yourself to priest. (Lk. 5.14 = (4))
- (24) *arin gnac'in zna* (= Gk. ἀπήγαγον αὐτόν)
 They **took-went** him. (Mt. 13.44)
- (25) *zglowxn Sanēsanay meci t'agaworin ekin berin araji ark'ayin Hayoc'*
The head of Sanesan, the great king **they went-brought** before the king of
 the Armenians. (Buz. 3.7 p.32)

Monoclausality is most clearly apparent in (24)–(25). In (24), V_2 *arin* is separated from its object (*z-na*) by V_1 *gnac'in*, while in (25), the object of V_2 *berin* is the complex DP *zglowxn ... t'agaworin*, which has been topicalized and appears to the left of V_1 *ekin* in precisely the same way as Vedic (17)–(18) and Greek (22).

While direct evidence for the monoclausality of (23) is lacking, there is good reason to believe that it belongs to the same syntactic type as the demonstrably monoclausal examples in (24)–(25). The same Armenian expression *ert' c'oyc'* that corresponds to the Greek participle plus finite verb complex ἀπελθὼν δεῖξον at Lk. 5.14 elsewhere renders Greek ὕπαγε σεαυτόν δεῖξον (e.g., Mt. 8.4, Mk. 1.44), where the two imperatives are separated by the object of the latter. The contiguity manifest in Armenian is most easily explained as the product of Armenian QSV imposing this requirement on the (non-contiguous) Greek structure.

There is thus clear evidence in Classical Armenian for QSV in both the imperative—just as in Latin, Vedic, and Greek (§§3.1–3)—and in the indicative, a development that among the ancient Indo-European languages is paralleled only in Hittite.

3.5. Hittite

In Hittite, as in Classical Armenian, the grammatical restriction of QSV to the 2nd person imperative does not obtain; rather, QSV has emerged as a productive

22 Armenian does allow the inverse word order, however, with V_2 preceding V_1 as in (24).

structure—the so-called “phraseological” construction²³—in which, like QSV in Latin, Vedic, and Greek, both V_1 and V_2 are identically marked for morphosyntactic features, but freely occur in the indicative in every person, tense, and number. The semantic restriction remains: V_1 is *pāi-* ‘go’, *uwa-* ‘come’, or one of their corresponding imperatives *it(ten)/eḥu*, e.g., (26)–(28):

(26) *ī̄t=war=ašta pargamuš* HUR.SAG.DIDLI.HI.A-*ašaš šāḥ*

Go search the high mountains. (KUB 17.10 i 24–5 = (5))

(27) *n=uš=apa wezzi zin[nai]*

She will come-destroy them. (KUB 1.16 ii 24)

(28) *ta=kkān paizzi*^{LÚ}L[UL- (dupl. ^{LÚ}*tarašīyan*)] *šipanti*

And **he goes-consecrates** the *t*-man. (KBo 17.43 i 8–9)

The monoclausality of (26)–(28) is demonstrated by the cliticization of particles—*-ašta*, *-apa*, and *-kkān*, respectively—associated with V_2 to V_1 or to the clausal conjunction immediately preceding it; in (27), the pronominal clitic object (*-uš*) of V_2 (*zinnai*) additionally attaches to the clause-initial conjunction.²⁴ Examples of this type are easily multiplied, and point collectively to a construction with greater productivity than in any other Indo-European language.

A potentially serious problem, however, to viewing the “phraseological” construction as the Hittite reflex of an inherited QSV is posed by the claim of van den Hout (2010:198–204) that Old Hittite lacks certain evidence for the construc-

23 Generally on the “phraseological” construction see van den Hout 2003 and 2010 (cf. Hoffner and Melchert 2008 §§24.31–42); for its synchronic syntactic analysis, I accept the account of Koller (2013) in principle.

24 The verb *šanḥ-* combines with the clitic *-ašta* to mean ‘search (an area)’ as evident in (26) rather than ‘search (for something)’ (cf. Hoffner and Melchert 2008 §28.74). In (27)–(28), it is far more likely that the particles belong to V_2 : in (27) *-apa* almost certainly should be read with *zinnai-* in its “terminative” sense (cf. Hoffner and Melchert 2008 §28.104); and *šipand-* ‘libate’ + *-kkān* in (28) is a regular idiom for ‘consecrate’, to which may be added the fact that *=kkān* rarely occurs with motion verbs in the absence of a preverb (Hoffner and Melchert 2008 §28.57). Nevertheless, it cannot be excluded that they belong to V_1 ; *šipand-* with *-kkān* as ‘consecrate’ is disputed by van den Hout (2010:198 n.35), and Hoffner and Melchert (2008 §§103–4) include instances of *-apa* with motion verbs. However, all three examples are further characterized by the absence of the subject clitics otherwise required by (unaccusative) *pāi-* and *uwa-*, a unique feature of the “phraseological” construction that overwhelmingly supports their analysis as such.

tion; hence it is likely to be an inner-Hittite innovation. Yet as Hock (2014:62–3) has demonstrated, this claim is problematic on at least two grounds. First, (28) is a syntactically unambiguous example of the “phraseological” construction in Old Hittite (OS) (cf. n.24). Furthermore, the “phraseological” construction is regularly found in New Hittite copies of Old Hittite texts, e.g., (26)–(27); since it is wholly unclear what would motivate a copyist to introduce this structure, nor are there known examples of such an addition,²⁵ it is far more likely that it was there already in the Old Hittite originals.

The most plausible interpretation of the Hittite distributional data is therefore that the “phraseological” construction was present but relatively infrequent in Old Hittite, then became productive later in the history of the language. The status of QSV at the earliest attested stage of the language thus accords with Latin, Vedic, and Greek.

3.6. *Toward a reconstruction of QSV in Proto-Indo-European*

Having assessed the evidence for QSV in the ancient Indo-European languages in §§3.1–5, it is now possible to formulate some broad generalizations, and to extrapolate about their likely prehistory. At the earliest stage of each language, Latin, Vedic, Greek, Armenian, and Hittite attest a SVC-like syntactic structure containing two identically marked 2nd person imperatives—the first a verb of motion—which are monoclausal. Armenian and Hittite exhibit an equivalent indicative structure productive in every person, tense, and number. The shared features of these constructions are most economically explained by common inheritance—specifically, from a QUASI-SERIAL VERB construction already in high-node Proto-Indo-European that was strictly confined to the imperative with an initial motion verb.

4. The Indo-European QSV: synchrony and diachrony

The reconstruction of PIE QSV proposed in §3.6 leaves two basic questions crucially unanswered:

- (i) What is the origin of Indo-European QSV?
- (ii) How is the emergence of productive indicative structures in Classical Armenian and Hittite to be explained?

25 Such as an extant original that lacks the “phraseological” construction where it appears in a duplicate.

These questions are addressed in turn in §§4.1–2.

4.1. *The origin of Indo-European QSV*

Building on the proposals of Zwicky (2003, 2012) for English QSV and Dunkel (1985) for the Hittite “phraseological” construction, I contend that the most likely source for QSV was asyndetically linked imperatives.²⁶ The frequent use of the motion verb in a directive-exhortative function (‘go/come!’), where it would lack a directional complement, in close succession with a second imperative may have led speakers to the generalization that V_1 could not take a directional complement, and was rather to be construed semantically with V_2 . It is likely that this new construction was, in the first place, quite narrowly restricted, and perhaps even a lexical idiom,²⁷ occurring only with the PIE root **h₁ei-* ‘go’ in the V_1 slot; this hypothesis is recommended by the fact that Vedic, Greek, and Hittite allow QSV only with derivatives of this root.²⁸

Within this construction,²⁹ the motion verb underwent semantic bleaching—a phenomenon cross-linguistically common with “light verbs”—gradually weakening into a marker of spatial orientation and, by extension, temporal sequentiality.³⁰ This further semantic development is most clearly evident in Hittite, which alone has examples of QSV where deictic interpretations of the motion verb are entirely excluded, but is likely to obtain as well for Vedic (19) and Greek (21)–(22); this evidence collectively suggests that QSV had such semantics already in high-node PIE.³¹

This semantic reduction in turn drove phonological reduction such that the $V_1 + V_2$ construction was treated as a single prosodic unit.³² A prosodic reanalysis of

26 I view either asyndetic VP conjunction or independent successive CPs as plausible historical sources for QSV.

27 For “double verb” constructions as lexical idioms cf. Aikhenvald 2006:45–6 and Zwicky 2012.

28 Though Vedic allows the structure $V_1 + (V_1 + V_2)$, where the internal motion verb is not necessarily derived from **h₁ei-*, e.g., (18).

29 That the semantic and prosodic weakening regularly concomitant to grammaticalization takes place *within* particular constructions is emphasized by Bybee (2005).

30 On the cognitive mapping between space and time see, e.g., Haspelmath 1997.

31 The use of the Hittite “phraseological” construction to signify a causal connection between V_2 and the action of a preceding clause (cf. van den Hout 2003) may be regarded as a natural development of this temporal sense; cf. Hitt. *nu* introducing result clauses (Hoffner and Melchert 2008 §29.6).

32 Cf. Bybee 2005 on the diachrony of the Eng. (*be*) *going to*, with semantic (future auxiliary) and prosodic (*gonna*) reduction.

this type is sufficient to account for, e.g., Vedic (19), Greek (20), and Hittite (26), where pronominal clitics associated with V_2 are hosted by V_1 ; assuming prosodic (but not syntactic) unity, the position of these clitics in the surface string is reached by syntactic movement alone to the left edge of the V_2 clause, and the absence of prosodic inversion owed to this special prosodic property of QSV at this stage, which is guaranteed for high-node PIE by the agreement of these three language branches.

Whether these examples also entail syntactic monoclausality at this stage is unclear.³³ The development of syntactic monoclausality in Hittite QSV is assured by, e.g., (27), where a V_2 clitic has attached to the clause-initial conjunction preceding V_1 , which must indicate a shared left-periphery. However, this development may have been an inner-Anatolian innovation independent of its emergence in the core PIE languages, which present a nearly uniform picture in allowing fronting of non-clitic arguments of V_2 to the left of V_1 . This syntactic operation is evident in Vedic (17)–(18), Classical Greek (21)–(22), and Classical Armenian (25). The further evolution of strict contiguity in Latin, Classical Armenian, and perhaps Classical Greek may be ascribed to the generalization of the core Proto-Indo-European pattern of imperative fronting; in this configuration V_1 and V_2 were contiguous, and V_1 very likely underwent additional prosodic reduction, a typologically common process reflected directly in Latin (15)–(16).³⁴ This last step is best regarded as an *einzel sprachlich* development.

4.2. *The further development of Indo-European QSV*

It remains to address the further development of the Proto-Indo-European QSV in Classical Armenian and Hittite. In this respect, English QSV may again prove instructive; its historical development suggests that extension to non-imperative modality requires some language-internal or -external factor(s) facilitating reanalysis. In the case of English, this reanalysis was facilitated by the homophony of the imperative and the base form of the verb, whence the extension of QSV to precisely those loci where the base form is used (cf. §2.3 above). It may be possible, then, to identify factors that motivate the productivity of QSV in Armenian and Hittite (vs. Latin, Vedic, and Greek). This approach seems profitable for Classical Armenian, where, in terms of grammatical properties, the development

33 Under the assumption of syntactic monoclausality, the V_2 clitic would undergo syntactic movement to the left of V_1 , then prosodic inversion to reach its surface position.

34 Cf. Shih 2009 on English QSV and n.11 above.

from imperatival QSV in the direction of productive verb serialization has progressed furthest, allowing, e.g., a wider range of verbs in the V_1 slot, and the inverse order of V_2 and V_1 . A potential explanation for this development is suggested by the observation of Kölligan (2012) that both Armenian and neighboring Syriac have similar syntactic structures of the type in (29), where (a) and (b) are renderings in Armenian and Syriac respectively of the biblical Greek excerpt in (c):

(29) a. Arm. *č'ogaw xeldec 'aw*

He went-hanged himself.

b. Syr. *w'ezal xnaq napšeh*

He went-hanged himself.

c. Gk. *ἀπελθὼν ἀπήγγεατο*

Having gone off, he hanged himself. (Mt. 27.5; cf. Kölligan 2012)

Kölligan (2012) identifies such structures—which include (24)–(25), syntactically unambiguous examples of QSV—as one of a large set of linguistic features shared by Armenian and Syriac, at least some of which must be attributed to language contact.

Given that Syriac is a language with verb serialization,³⁵ and that SVCs tend to diffuse areally (Aikhenvald 2006:52), it is reasonable to assume that an inherited QSV was reinforced in Armenian by language contact with Syriac, and subsequently developed into semi-productive verb serialization under its influence.

This scenario—rather than the ex nihilo emergence of SVC-like structures—is recommended by the fact that Armenian QSV shows strict contiguity—a feature shared with English QSV, as well as with SVCs in many verb-serializing languages (cf. Aikhenvald 2006:37)—but not with Syriac;³⁶ this property may be explained, though, as a generalization of the core PIE pattern of imperative fronting also evident in Latin (15)–(16) and (indirectly) in English (13)–(14).

The development of QSV in Hittite into the more productive “phraseological” construction must be explained otherwise. A strong possibility is suggested by the diachronic analysis of van den Hout (2010), who, in arguing for a Hittite-

35 See especially the examples discussed by Muraoka (1997:78–81) under §98 (g), but some of the structures presented in (b), (e), and (f) could be analyzed as SVCs as well.

36 Contiguity is frequent, but intervention is admitted, e.g., Mt. 14.12; cf. Muraoka 1997:80.

internal development of this construction, identifies structures like (30) as the locus of reanalysis:

(30) $t] = aš$ *paizzi*^{LÚ.MEŠ} *MEŠEDI-an pēran tiezzi*

He goes-steps in front of the bodyguards. (KBo 20.12+ i 2–3)

According to van den Hout (2010), such structures—originally asyndetically linked clauses or, more likely, coordinated verb phrases, as Koller (2013) has argued—were ambiguous in that the subject clitic =*aš* could be semantically interpreted with either verb, viz., *paizzi* ‘goes’ or *tiezzi* ‘steps’ (cf. Koller 2013: 89–90), and were subsequently reanalyzed by speakers as a unitary construction in which a V_2 clitic is hosted by the initial motion verb.

While an independent reanalysis of this kind cannot be ruled out, it seems more likely that this reanalysis was triggered by the possibility of a paradigmatic verb of motion V_1 hosting V_2 clitics in imperatival QSV. This hypothesis has at least one major advantage: if QSV was at the earliest stage lexically restricted to **h₁ei-* ‘go’ as proposed in §4.1, it correctly predicts the restriction of the “phraseological” construction to derivatives of this root. In contrast, the account advanced by van den Hout (2010) incorrectly predicts that all (unaccusative) verbs which take subject clitics—e.g., *ar-* ‘arrive’, *iya-* ‘go, march’, or the same *tiya-* ‘step’—would similarly have undergone reanalysis, and thus been admitted in the emergent “phraseological” construction in the V_1 slot.

Although his account overgenerates in this respect, van den Hout (2010) nevertheless calls attention to a syntactic configuration which may have served, instead, as a pivot for the extension of QSV into the indicative. Having provided the analogical model for the reanalysis of examples like (30), imperatival QSV would then have fallen together with these newly reanalyzed indicatival structures as the nucleus of the emergent “phraseological” construction. The much greater productivity of QSV in Hittite than in Latin, Vedic, and Greek is thereby directly linked to a unique property of the Anatolian languages, namely, the innovation of subject clitics, which would have played an instrumental role in the process of reanalysis.

4.3. QSV in Proto-Indo-European

In §§4.1–2, a possible diachronic pathway for the emergence of QSV from asyndetically linked imperatives was proposed, and an attempt made to motivate its development into a productive construction in Classical Armenian and Hittite. Significantly, this historical trajectory contradicts the “tendency” observed by

Hock (2014:61) “to abandon the serial verb construction in favor of non-finite alternatives.” Rather than grammaticalized relics of a once-productive construction, the fairly limited evidence for QSV in Latin, Vedic, and Greek is better understood as a reflection of the original PIE situation, where it functioned as a peripheral syntactic strategy in much the same way as QSV in modern English.

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