

PIE inheritance and word-formational innovation in Slavic motion verbs in *-i-*

Marc L. Greenberg
University of Kansas

The unprefixated imperfective verbs of motion with present tense in *-i-* (such as Russian *vodit'*, *vožit'*, *bežat'*), most of which are considered indeterminate in the modern languages, developed over a lengthy period from Proto-Indo-European to the disintegration of Proto-Slavic. The final period of their development in Slavic shows striking innovation in the formal and semantic structures, including quasi-serialization in the compounding of verbal stems in such a way that the main lexical verb is modified by a manner component, e.g., **ja-* 'travel' + *-sd-* 'sit' = *jazd-i-ti* 'ride'. This innovative period in the development of motion verbs correlates with the period of migrations, which are seen as the end of the previous state of equilibrium in the Slavic speech community.

1. Introduction

Languages can be classified into two groups on the basis of whether their motion verbs typically represent path or manner in the verb. The Indo-European languages, except for Romance, fall into the second category (Talmy 1985:75). Indo-European languages, again with the exception of Romance, are referred to as satellite-framed (S) languages (as opposed to verb-framed [V] languages), where S-languages typically encode path in prefixes and prepositions and V-languages encode path in the verb itself (Slobin 2004:219ff.). Slavic languages are not only typical representatives of S-languages, but they also demonstrate a much more frequent occurrence of manner verbs in narrative than other non-Romance Indo-European languages (Slobin 2004:225). Based on analysis of adult narrations of the well-known "frog-story," Slobin finds that some languages use manner verbs with lesser frequency than other languages. While typically V-languages have lower incidence of manner verbs and S-languages higher, such S-languages as Dutch and German use one quarter and English one third as many manner verbs as Russian, which uses virtually exclusively manner verbs. The discrepancy

in this analysis is attributed to different lexicalization patterns, whereby the Germanic languages all have a non-manner path verb with the meaning ‘come’, but Russian has only manner verbs with prefixes (e.g., *prijti* ‘come on foot’, *priexat* ‘come by conveyance’, *priletet* ‘come flying’) (Slobin 2004: 227). This point can be extended to other Slavic languages, which have the same general lexicalization patterns *mutatis mutandis*. Moreover, Slavic developed the manner of motion verbs by creating a special type of verb class that isolated manner from path, as will be discussed forthwith.

From a diachronic viewpoint, Slavic represents a special case within the Indo-European language family in that Slavic has developed in addition to verbs of lative, directional motion (“determinate”) verbs, also a contrasting class of non-lative, non-directional verbs focusing on manner-of-motion (“indeterminate”), e.g., R *idti* ‘to go (on foot)’, *xodit* ‘walk, walk around’. While the determinate verb OCS *iti* ‘go’ has widely attested cognates across the Indo-European family (PIE **h₁ey-* > Hi *īt* ‘go!’, Sk *éti* ‘go’, Gr *eīmi* ‘I go’, Lt *eō, īre* ‘I go, to go’, Old Prussian *ēit* ‘goes’, Tocharian B *yam* ‘goes’, Ghag Albanian *ve* ‘goes’), the corresponding indeterminate *xoditi* ‘walk’ (as a verb) has a history only within Slavic (see below). For this reason a diachronic examination of the indeterminate stems is warranted.

The present paper has the modest goal of surveying the word-formation processes of the Slavic unprefixated imperfective verbs of motion with present tense in *-i-*, most of which are now considered to have “indeterminate” aspect (exemplified by R *vodit*, *vozit*, *bežat*, *nosit*, *xodit*, *ezdit*, *lazit*, *letet*; Sln *voditi*, *voziti*, *ploveti*, *bežati*, *nositi*, *hoditi*, *jezditi*, *leteti*) in order to gain insight into their role in the development of the Slavic lexicon.¹

Given that the verbs of motion had their start in the Proto-Indo-European stage, but continued to develop from heterogeneous material and came to form a class with special aspect characteristics within the formation of Slavic, the examination of this layer of the lexicon affords also an opportunity to consider correlations between the verbal innovations and the stage of social development connected with the Slavic speech community at the relevant moments.

1. The paper grew out of discussions with my departmental colleague, Stephen M. Dickey, to whom I am grateful for encouraging me to work outside of my usual research topics and for helping me see the larger framework in which my observations on the etymology of Slavic verbs of motion fit. I am also grateful to the volume editors and anonymous referees for several helpful suggestions.

2. Inherited and innovative material

In the following section the relevant PIE-to-Slavic material for the formation of the Slavic motion verbs with present tense in *-i-*, which generally correspond to modern Slavic “indeterminate” stems, is outlined. An attempt is made to distinguish the stems that indicate a direct continuation of PIE formations and those that are formed anew or display formal innovation beginning in either the Balto-Slavic or Slavic-only stages. The only exception to the delimitation to the group of verbs leading to modern “indeterminates” is the inclusion of the verbs **běžati* and **letěti*, which are treated together with others on formal grounds. Nevertheless, these correspond to a focus on manner-of-motion semantics (see Dickey, this volume, as well as Jakulis [2004: 168–170] with regard to Baltic).

The material is culled primarily from three etymological dictionaries, *ESSJ*, *ĚSSJa*, and Rix et al. (2001). These three sources were selected because they are among the most up-to-date and detailed etymological dictionaries that relate Slavic material to their putative PIE origins; the *ĚSSJ* is, at the time of this writing, available through vol. 33 (**orzbotěti* – **ormajati* [sę]). Other sources are noted. The emphasis is on giving a general outline of the developments rather than rehearsing the received etymologies and the details supporting them. The relevant etymological dictionaries can be consulted for this purpose. Where my own explanations go beyond the received etymologies, additional comments are added in the discussions of the relevant formation. The discussion is truncated somewhat in that it tacitly refers to the semantic developments for the relevant verbs adduced in Stephen Dickey’s paper in this volume.

2.1 Indo-European inheritance

PIE **wodh-eye-*, PS **vod-i-* ‘lead’

OCS *voždq*, *voditi* ‘lead’, R *vožú*, *vódiš*, *vodít*, BCS *vòditi*, Sln *vòdim*, *vodíti*; Bg *vódja*, Cz *vodím*, *vodit*; Po *wodzić*, Li *vadaū*, *vadyti* ‘lead’, La *vadit*; Hi *u-wattemi* ‘schaffe herbei’, Av *vādaieiiti* ‘leads’.

PIE **wog’h-eye-*, PS **voz-i* ‘go by wagon’

OCS *vožq*, *voziti* ‘lead’, R *vožú*, *vóziš*, *vozít*, BCS *vòziti*, Sln *vòzim*, *vozíti*; Cz *vozím*, *vozit*; OCS *vožq*, *voziti* ‘travel’, Vedic *vāhayati* ‘makes travel’, Gr *ὀχέομαι* ‘I travel’, Go *-wagjan* ‘to shake’.

The Gothic attestation’s semantics perhaps points to a common original meaning ‘go by means of a cart, i.e., take a bumpy ride’.

PIE **plow(H)-eye-*, PS **plov-ě-* ‘float’ and **plov-i-* ‘cause to float’

Sln *plovím, plověti* ‘navigare, natare, volare, undare’, *plovím, plovíti* ‘schiffen’; Sk *plāváyati* ‘cause to float’, Av *frāvayōit* ‘it could sail off’, Gr *plóō* ‘I swim, sail’, Lt *perplovere* ‘to flood, allow water in (a vessel)’.

2.2 Balto-Slavic innovations

(PIE **bhegw-*), PS **běg-ě-* ‘flee’, later ‘run’

OCS *běžō, běžati*, R *bežát’*, Sln *bežím, bežáti*, R *bežát’*; Li *pabėgėti* ‘flee’.

The PIE causative (**b^hog^w-éye-*) is reflected in Gr. *fobéō* ‘I chase off’ and the medio-passive in Greek (*fobéomai* ‘I flee’) shows approximately the same meaning found in the Balto-Slavic stative formation. The *e*-grade stative formation (length in the root being from the operation of Winter’s Law) points to a Balto-Slavic innovation that originally meant ‘flee’, as in Lithuanian, which later became interpreted in Slavic also as a manner verb meaning ‘run’. Li *bėgu* ‘I run’, *bėgau* ‘I ran’, which indicates that the form originated in the PIE imperfect from the theme of the present-tense (contrast *liekū* ‘I remain’, *likaū* ‘I remained’ with zero-grade, which is formed on the aorist stem) (Bubenik 1997: 82–83). The unsuffixed form is also attested in Slavic, albeit limited to Polish and East Slavic (Po *biec* ‘flee’, R dial. *beč’* ‘idem’, OUK *běčy, běhčy, běhty*, Uk *bíhty*, [*ĚSSJa* vol. 2, s.v. **běgt’i*]). The meaning ‘flee’ is also evident in the durative in *-a-*, OCS *bėgati: otъpuštenomъ že imъ byvъšemъ • tako tekъšte bėgaaxō aky ognēmъ gonimi* ‘when they were released, they fled, running as though they were chased by fire’ (from Codex Suprasliensis, cited in Cejtlin et al. 1994, s.v. *bėgati*). The contrast between the two is still found in Slovene *teči* ‘run’ vs. *bežati* ‘run away, flee’. (See also Dickey in this volume.)

(PIE **h₁nok’-*), PS **nos-i-* ‘carry’

OCS *nošō, nositi* ‘carry’, BCS *nòsiti*, Sln *nòsim, nosíti*, Cz *nosím, nosit*, R *nósiš’, nosít’*.

ĚSSJa asserts that **nositi* is “functionally” an iterative of **nesti*, but in terms of word-formation a denominal in *-iti* from **nosō*, citing the *o*-grade in Lith. *našta*, Latv. *nasta* ‘dress’, Li *panašėti* ‘to become similar’ (*ĚSSJa* vol. 15:210), which also seems to have developed together with Slavic, cf., Slovene *oponāšati*, BCS *oponāšati* ‘to imitate’ (see Snoj 2003:474). The most elegant solution would be to assume that the “indeterminate” stem was built from *nesti* in the Balto-Slavic stage by analogy to the existing relationships in *vez-* : **voz-*, **ved-* : **vod-*. See also **xod-*, below.

2.3 Slavic innovations

(PIE **sed-*), PS **xod-* ‘walk’

OCS *xoždŏ, xoditi* ‘walk’, Sln *hódim, hodíti*, BCS *hòditi*, Bg *xódja*, Cz *chodit*, Po *chodzić*, R *xódiš’, xodit’*.

The lack of Balto-Slavic cognates suggests that a direct connection to the alleged IE congeners (which Rix et al. list as “causative-iteratives” Vedic *sādáyati* ‘to sit, cause to sit’, Younger Av *-šādaiieiti* ‘sits’, Middle Welsh *anho-* ‘chase away’) is only apparent; he provides an alternative explanation of derivation from the nominal root *xodō* ‘gait, course’, and explains the unexpected anlaut change $x > s$ as an extension from the prefixed forms (Rix et al. 2001: 513–515). To the extent that the Slavic and Indo-Iranian roots can be connected, it is perhaps to a more primitive notion of the IE o-grade of **sed-* along the lines of ‘positioning one’s legs either to sit or stride’. Similarly Gr *hodós* ‘path’ developed from this starting point. With regard to Slavic, we may posit a post-nominal formation from *xod-* as ‘gait, march’, particularly in light of OR *xoditi* ‘dvigat’sja, peredvigat’sja, stupaja nogami’ (ĖSSJa vol. 8: 48). The formation then fits with the analogical pattern **ved-/vōd-* → **vod-i-ti*; thus **eid-* ~ **xed-/xod-* → **xod-i-ti*. Although the leading form does not come straightforwardly from the present tense stem **(e)i(d)-*, rather, the *e*-grade correlate to **xod-* is found in the participle *-šed-ōši* and in deverbial forms, cf., Old Novgorodian *šestnikō* ‘newcomer’ (Zaliznjak 1995: 681).

(PIE **yoh₂-*, **sed-*), PS **ja-sd-i-* ‘travel while sitting, ride’

OCS *jaždŏ, jažditi* ‘ride’, Sln *jēzdim, jēzditi* ‘ride a horse’, BCS *jèzditi* ‘ride a horse’, Bg *jázdja* ‘ride a horse’, Ma *jazdi* ‘rides’, Po *jeździć* ‘ride’, Pl *jeźdźt* ‘ride a horse’, US *jeździć* ‘ride, control with reins’, R *ézdíš’, ézdit’* ‘ride’, Uk *jízdyty* ‘ride’.

This verb has been subject to a wide variety of etymological treatments, the details of which are sketched in Greenberg and Dickey (2006), which also contains this author’s explanation, as summarized here. The stem is formed as a compound of *ja-* < PIE **yoH-* + the zero-grade **-sd-* ‘sit’, the simplex verb form of which is reflected in PIE congeners, e.g., Li *jóti* ‘to ride’, ‘travel’, La *jât* ‘to ride, travel’, Vd *yáti* ‘travel’; the same form is also present in West Slavic languages: Cz *jet*, US *jěc*, OPo *jac* all meaning ‘ride’. Slavic innovated a new verb by creating a term that meant ‘travel’, i.e., both ‘to go a long distance, longer than can be reasonably reached on foot’ and ‘to do so while sitting on a horse’, a meaning that has been preserved to this day in the South Slavic languages; the meaning has been generalized to ‘ride (by any means of conveyance)’ in the modern West and East Slavic languages.

Although one can construct circular arguments to claim that PS **jazditi* is a denominal, cf., PS **borzdǎ* (Ru *borzďá*, Sn *brázda*) < PIE **b^horH* ‘work with a sharp object’ + **-sd-* = ‘(result of) sharp object sitting (in the earth)’ = ‘furrow’, cognate with En *to bore* ‘to drill a hole’ (Rix et al. 2001: 80, Snoj 2003: s.v.) or that it was formed directly as a verb as PS **borzdǐti* (R *borzďít*) ‘to make a furrow’, the formation is reminiscent of serial-verb constructions in which foregrounded and backgrounded or accompanying verbal actions are juxtaposed in a single clause.² Therefore it is reasonable to assume that the verb was formed as such and that it is not necessary to assume a preliminary stage at which a noun **jǎzd-* was formed that in turn gave rise to a verb (as, for example, Vaillant 1966: 77).

(PIE **loh_gh-*), PS **laz-i-* ‘crawl’, later ‘climb’ and ‘go’

OCS *laziti* ‘reperé’, Sln *lázim, láziti* ‘crawl’, BCS *láziti* ‘to go, walk’, Bg *lázja* ‘crawl on all fours’, Cz *lazit* ‘crawl, climb’, R *lázit* ‘crawl’, Uk *lázyty* ‘crawl’.

No convincing PIE formations of ***loh_gh-eye-* are given (see *ĚSSJa*, vol. 14: 66), so it is reasonable to assume that this is an example of another Slavic manner verb formed by analogy to the type **ved-/vod-i-* in which the *e*-grade served as the leading form **lězti* < PIE **leh_gh-*, cf., La *lězēt* ‘slide’, OHG *læge* ‘flat’.

Aside from the bleaching of the meaning in BCS to ‘go’, the term is also used in a more specific meaning with regard to beekeeping, BCS dial *láziti med* ‘to remove honeycomb from a hive’, OR *laziti pčelǎ, medǎ* ‘idem’, Br *lázic* ‘to remove the honey from a hive’, OPo *polazić* ‘obtain honey from a hive’. These meanings reflect the focus on forest apiculture that prevailed among the Slavs, which required tree-climbing to retrieve honey from hives, cf., OR *drěvolazǎ* ‘beekeeper’ (Bezljaj 1948: 57).

(PIE **lek-*) PS **le-t-ě-* ‘fly’

OCS *leštǒ, letěti* ‘fly’, Sln *letím, letéti* ‘fly, start’, BCS *lètím, lèt(j)eti* ‘idem’, Bg *letjá* ‘fly, flutter’, Cz *letěti* ‘fly, move fast’, *lećéc* ‘fly, move fast’, R *letét* ‘fly’.

PS **letěti* is derived as a stative verb (cf., *běžati*) from an unsuffixed form **lek-* ‘bend (as of a wing)’ (cf., Li *lekiù, lěkti* ‘fly, bolt, fall’, La *lèkt, lecu* ‘jump, fly [rare]’ and *lĕkāt* ‘fly, jump’; the Baltic forms imply an earlier simplex form **lek-ti* that has ceased to exist in Slavic) and the suffix *-t-*, which denotes a steady state resulting

2. It is beyond the scope of this paper to deal with the problem of the status of such a formation in Slavic as a “true” serial verb or merely a compound. However, in this regard I defer to Crowley (2005: 959), who says that “verbal compounding and verb serialization [...], in fact, exhibit a variety of similarities crosslinguistically, with the only real difference being that we are dealing with either words or phrases.” See also Joseph (1990) on this problem with respect to Greek.

from a repeated action, cf., the parallel formation in Bg *dǫxtjá* ‘give off a pleasant smell’, Sln *dehtím, dehtëti* ‘idem’, BCS *dǎht(j)eti* ‘idem’, derived from **dǫx-* ‘breath’; R *pyxtét* ‘blow (imperf.)’, *krjuxtét* ‘groan (imperf.)’. The relevant cognates to the root include ON *leggr* ‘leg, bone’, whence also English *leg*; Gk *laktídzo* ‘I kick’.

3. Discussion and conclusion

The survey of the material above demonstrates that the formation of a set of largely “indeterminate” stems was a lengthy process with origins in Proto-Indo-European and continuing through the Balto-Slavic and Proto-Slavic stages. All of the material ultimately originates in PIE, but some of it was recombined at these later stages evidently to meet evolving communicative needs. The separation of a Balto-Slavic stage in the stratification above seems a bit tenuous, but the criterion for doing so was whether cognates could be found for the whole formation, including both root and suffix. So, for example, one might see the semantic development of the word for ‘fly’ (from a root meaning ‘bend, flap’ developing to ‘flutter’ and, finally, generalized to ‘fly’) as a Balto-Slavic innovation, but the formal addition of *-t-* in Slavic indicates further development beyond the Balto-Slavic stage.

Of particular interest are the two Slavic-only formations indicating novel stem formations that include a verbal root + ‘manner’ suffix + verb-class suffix, **jazditi* and **letěti*. These formations look anomalous in the context of the short list of “indeterminate” verbs, but in fact they reflect innovative processes in Slavic verb formation. For example, PS **ja-ti* ‘travel’ is part of a derivational nest that includes both **ja-x-a-ti* ‘travel fast’ with an intensive suffix *-x-* (R *éxat*, Sln *jáhati*) and **ja-zd-i-ti* ‘travel while sitting (on a horse, chariot, etc.)’, cf., PS **ma-x-ati* (R *maxát*) ‘wave one’s hand’ vs. **ma-j-a-ti*, **ma-j-ǫ* ‘to shake something’ (OCS *majati*, *majǫ*, Sln *majáti, májem* ‘idem’; Li *móti, móju*, La *māt, mājū*, both ‘wave’).

Both **jazditi* and **letěti* can be further contextualized by a new etymology for a later development in BCS. Here, a novel explanation of BCS *lěbd(j)eti* ‘hover’ is presented. Rather than connect it with PS **lebetati*/**lebvati* ‘sway, shake’, said to be of “onomatopoeic” origin (see *ĚSSJa* vol. 14:78–80), BCS *lěbd(j)eti* can be seen as a novel formation created as a serialization of *le-* ‘fly’ + *-bǫd-* ‘be’, whereby the second element is treated as a zero-grade to related roots *by-*, **bǫd-* ‘be’ or, possibly even the homophonic *bǫd-* (< PIE **bhewdh-* ‘awake’) (OCS *bǫděti* ‘be awake, stand vigil’ or even a parallel formation to the double-prefixed form **sǫnabǫděti* ‘to supply, care for’, R *snabdít*, Cz *snabdět*, Cr *snabdjeti*). Here again the second morpheme denotes a manner, in this case the meaning ‘remain in place, stay still’, thus *le-* ‘fly’ + *-bd-* ‘remain in place’ = ‘hover’. This derivational model has remained robustly productive in BCS, e.g., *lepřhati* ‘leteti, mahati,

udarati krilima, *lepřtati* ‘kretati se u vazduhu šumno mašuci krilima, leteti’, ‘mahati, udarati krilima (o pticama)’, *lepúhati* ‘leteti proizvođeci slabiji ili jači šum krilima, lepršati (o pticama)’ (all imperfectives) (Bjeletić 2006: 115–117; see the entire monograph for a wider discussion and many more examples). Although Bjeletić analyzes these compounds as “expressive,” there is no reason not to view the first morpheme as lexical, the second morpheme as contributing a manner meaning, and the resulting compound as being tantamount to a serialization.³

The word-formational heterogeneity of the class of indeterminate verbs is underscored by the fact that *i*-suffixed verbs **běžati* and **letěti* in the Balto-Slavic and Slavic stages, respectively, for determinate verbs of motion with indeterminate stems, formed with the durative *-a-* suffix, **běžajō*, **běžati* and **letajō*, **letati*, respectively.

Proceeding from the observation that these new formations in the “indeterminate” verbs of motion innovate precisely by adding “manner” meanings to the lexical material for motion verbs, we agree with Dickey’s view (this volume) that in Proto-Slavic unprefixed imperfectives were manner-of-motion verbs, with the relics of this usage in older attestations of the modern Slavic languages. Though it is difficult, if not impossible, to know in subtle detail what the prehistoric formations meant since no contexts are available for their usage at the moment of their introduction, it does seem certain that at the Slavic stage the manner meaning was salient, given that the new formations explicitly add material to the compounds to emphasize manner.

This focus on manner of motion and, in particular, the onset of word-formational creativity in the quasi-verb-serialization compounds may actually have been motivated by extra-linguistic causation, namely, the migration of Slavic speakers from their core territory to roughly their present-day locations. At the outset it should be stated that this is a mere suggestion about the possible connection between word-formational innovation and extra-linguistic factors and should not be seen as deterministic. For example, one might suppose that post-Columbian Spanish would develop a high degree of manner salience during the period of colonization and its attendant long-range migration, but this is decidedly not the case. Nevertheless, there may be reasons for this discrepancy: the Latin world had already developed a maritime vocabulary connected with trade and warfare at least by the early Middle Ages, long before the Columbian period (see McCormick 2001: 404ff.). This is not the case with the Slavs, who are widely viewed to have been sedentary agriculturalists before their migrations to the west and south. Moreover, a parallel development of new technology (the “second-

3. Bjeletić views this pattern as being of PIE provenience, citing Indo-Aryan evidence (2006: 377–382).

ary products revolution”) and new vocabulary in Indo-European can be observed with the rise of terms pertaining to the wheel, the wagon, and wool-cultivation (Anthony 2007: 59ff.)

In the first centuries A.D. the Slavic-speakers appear in history at a moment when they have emerged as a separate linguistic entity and are, in a real sense, in motion. Prior to this, as suggested by the archaeological record (the Zarubinec Culture and the correlated Slavic hydronymy as well as the multi-ethnic Černjaxov Culture), the early Slavic speech community is connected with a sedentary agricultural society in the central and upper Dnepr basin (Doluxanov 2000: 180–185). The Černjaxov Culture emerges at a time of climate change and socio-political crisis in the Roman Empire which sets the stage for migrations of peripheral ethnic groups to migrate (Doluxanov: *loc. cit.*) The sparse (and ambiguous) descriptions of a Proto-Slavic ethnos in the earliest historical records, intriguingly enough, refer to manners of motion. For example, Tacitus (56–117 AD) remarks (in *Germania* 46) that the *Venethi* are primarily trained as foot soldiers and thus differ from the Sarmatians who operate with horse and cart (“quia et domos figunt et scuta gestant et pedum usu ac pernicitate gaudent: quae omnia diversa Sarmatis sunt in plastro equoque viventibus”) (Gindin et al. 1994: 39). Later, the Slavs are observed navigating the waterways in their migration across the Danube and throughout the Balkans by means of monoxyles, according to Priscus (5th c. AD) (Gindin et al. 1994: 84–85, 91).

The diffusion of Slavic speakers from the 6th century onwards through the Balkans, reaching the Aegean Sea and Constantinople, into central Europe, to the mouth of the Elbe and beyond, implies not just motion, but adaptation to new landscapes, climates, and lifestyles that would have required innovative means of expressing interactions with the world, both their own interactions and those of newly encountered groups. In short, the migrations of the Slavs from their core area in the Dnepr basin constituted a period of punctuation of their social, accordingly, linguistic development, following a period of equilibrium. Such a period of punctuation predicates the comparatively rapid splitting of a stable language community into daughter languages (Dixon 1997: 73–85). This is in fact what occurred in the case of Slavic as a consequence of the migratory period.

References

- Anthony, D. W. 2007. *The Horse the Wheel and Language: How Bronze-Age Riders from the Eurasian Steppes Shaped the Modern World*. Princeton NJ: Princeton University Press.
- Bezlaj, F. 1948. Drobci iz pradavnine. *Slovenski čebelar* L/1–2: 14–21; L/3–4: 57–64.

- Bjeletić, M. 2006. *Iskovrnuti glagoli. Tipovi ekspresivnih preverbalnih formana*. Belgrade: Institut za srpski jezik SANU.
- Bubenik, V. 1997. The verbal system of Old Church Slavic. In *Tense and Aspect in Indo-European Languages: Theory, Typology, Diachrony*, J. Hewson & V. Bubenik (eds.), 82–102. Amsterdam: John Benjamins.
- Cejtlin, R. M., Večerka, R. & Blagovaja, Ė. 1994. *Staroslavjanskij slovar' (po rukopisjam X–XI vekov)*. Moscow: Russkij jazyk.
- Crowley, T. 2005. Serial verb construction. *Encyclopedia of Linguistics* 2: 959–960. New York NY: Fitzroy Dearborn.
- Dixon, R. M. W. 1997. *The Rise and Fall of Languages*. Cambridge: CUP.
- Doluxanov, P. M. 2000. *Istoki ètnosa*. Saint Petersburg: Evropejskij dom.
- ESSJ = Bezljaj, F. 1976–2007. *Etimološki slovar slovenskega jezika*, Vols. I–V. Ljubljana: Mladinska knjiga (Vols. I–III) & Založba ZRC (Vols. IV–V).
- ÈSSJa = Trubačev, O. N. & Žuravlev, A. F. (eds.). 1974–. *Ètimologičeskij slovar' slavjanskix jazykov*, vols. 1–. Moscow: Nauka.
- Gindin, L. A. et al. 1994. *Svod drevnejšix pis'mennyx izvestij o slavjanax*, Tom I (I–IV vv.). Moscow: Vostočnaja literatura, RAN.
- Greenberg, M. L. & Dickey, S. M. 2006. Slavic *jazditi 'to ride' and its implications for the category of (in-)determinacy. In *Jezikovna predanost. Akademiku prof. dr. Jožetu Toporišiču ob 80-letnici*, M. Jesenšek & Z. Zorko (eds.), 153–158. Maribor: Slavistično društvo Maribor.
- Jakulis, E. 2004. *Lietuvių kalbos tekėti, teka tipo veiksmažodžiai*. Vilnius: Vilniaus universiteto leidykla.
- Joseph, B. D. 1990. On arguing for serial verbs (with particular reference to Modern Greek). In *When Verbs Collide: Papers from the Ohio State Mini-Conference on Serial Verbs* [Ohio State Working Papers in Linguistics 39], B. D. Joseph & A. Zwicky (eds.), 77–90. Columbus OH: Department of Linguistics.
- McCormick, M. 2001. *Origins of the European Economy. Communications and Commerce AD 300–900*. Cambridge: CUP.
- Rix, H. et al. 2001. *Lexikon der indogermanischen Verben. Die Wurzeln und ihre Primärstambildungen*. Wiesbaden: Dr. Ludwig Reichert Verlag.
- Slobin, D. I. 2004. The many ways to search for a frog: Linguistic typology and the expression of motion events. In *Relating Events in Narrative*, Vol. 2: *Typological and Contextual Perspectives*, S. Strömquist & L. Verhoeven (eds.), 219–257. Mahwah NJ: Lawrence Erlbaum.
- Snoj, M. 2003. *Slovenski etimološki slovar*. Ljubljana: Modrijan.
- Talmy, L. 1985. Lexicalization patterns: semantic structure in lexical forms. In *Language Typology and Syntactic Description*, Vol. III: *Grammatical Categories and the Lexicon*, T. Shopen (ed.), 57–149. Cambridge: CUP.
- Vaillant, A. 1966. *Grammaire comparée des langues slaves*, t. III. Paris: Éditions Klincksieck.
- Zaliznjak, A. A. 1995. *Drevnenovgorodskij dialekt*. Moscow: Jazyki russkoj kul'tury.

Appendix 1. Language abbreviations

Av	Avestan
BCS	Bosnian-Croatian-Serbian
Bg	Bulgarian
Br	Belarusian
Cz	Czech
En	English
Go	Gothic
Gr	Greek
Hi	Hittite
La	Latvian
Li	Lithuanian
Lt	Latin
Ma	Macedonean
O	Old
OCS	Old Church Slavic
OHG	Old High German
ON	Old Norse
Pl	Polabian
Po	Polish
PS	Proto-Slavic
R	Russian
Sk	Sanskrit
Sln	Slovene
Uk	Ukrainian

