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Schoubben, N.

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Niels Schoubben

# Linguistic evidence for Kuṣāṇa trade routes

Bactrian \*λῐρτο ‘load, cargo’ and Sanskrit *lardayati* ‘to load’

**Abstract:** Late Sanskrit *lardayati* ‘to load’ is probably not inherited from a PIE root \**lerd-*, as has recently been argued by Kaczyńska (2020), but can be explained as a denominative of \**lārda-* ‘load, cargo’. This noun \**lārda-* could be a borrowing from Bactrian \*λῐρτο /lirtə/ ‘load, cargo’ < Old Iranian \**d̥r̥šta-*. This etymology fits well with the fact that *lardayati* is phrased together with *sthora-* ‘pack-animal’, likely another instantiation of the Iranian collocation of \**staura-* ‘animal’ and \**vdarz-* ‘to load’, for which I discuss evidence from Niya Prakrit, Parthian and Khotanese. In addition, further support is drawn from the independent historical evidence for the domination of the main trade routes of Central and South Asia by the Kuṣāṇa dynasty in the first centuries of our era.

**Keywords:** Sanskrit; Bactrian; Etymology; Language Contact; *Divyāvadāna*; Kuṣāṇa empire

## 1 The attestations of Sanskrit *lardayati* in the *Divyāvadāna*

The Sanskrit *Divyāvadāna* can hardly be considered a standard source for Indo-Iranian historical linguistics, even though this collection of Buddhist stories contains some Sanskrit words which are otherwise hard to come by and deserve some more attention than they usually receive. A case in point is the Sanskrit verb *lardayati* ‘to load’, which forms the main topic of the present paper. This verb occurs a few times in the *Divyāvadāna* (cf. Edgerton 1953: 2, 461), but apparently nowhere else in Sanskrit literature. Derivatives of this verb are well attested in later strata of Indo-Aryan: e.g. Prakrit *laddeṭi* ‘to load’ < *lardayati* and *laddaṇa-* ‘loading’ < \**lārdaṇa-*, Kashmiri *ladun* ‘to raise, to set up, to send, to dispatch’, inf. in *-un* from *vlad-* < *vladd-* < *vlard-* (cf. *padun* ‘to fart’ from *vpard*) and Hindi *lādnā* ‘to load, to pile up’, inf. in *-nā* from *vlād-* < *vladd-* < *vlard-* (cf. *pādnā* ‘to fart’ from *vpard*) (see Turner 1966: 636; Kaczyńska 2020: 416f.). In view of the absence of this word from older Buddhist literature and Indian literature in general, Burrow (1973: 61) suggests that we are dealing with a “vernacular” or “provincial” word.

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Niels Schoubben, Leiden University; n.schoubben@hum.leidenuniv.nl

In this short paper, I will critically evaluate an Indo-European etymology of *lardayati* which has recently been proposed by Kaczyńska (2020) (see §2), and I will, as an alternative, argue in favour of a Bactrian etymology (see §§3–4). Before doing so, I first want to make a few notes on the actual attestations of *lardayati* and its connection to the word *sthora*- ‘pack-animal’.

The relevant passages from the *Divyāvadāna* are cited below (exx. 1–3), accompanied by my own translations.<sup>1</sup>

- (1) *yāvat paśyati sthorāṃl lardayantaṃ sārtham so 'pi sthorāṃl lardayitum ārabdhaḥ*

When he saw that the caravan was **loading the pack-animals**, he started **to load his pack-animals** as well.

*Koṭīkarnāvadāna*; Cowell & Neil 1886: I 5, l. 22f.

- (2) *sa sārthaḥ sarātrim eva sthorāṃl lardayitvā saṃprasthitāḥ*

The very night **they had loaded the pack-animals**, the caravan departed.

*Koṭīkarnāvadāna*; Cowell & Neil 1886: I 5, l. 25f.

- (3) *te 'pi vaṇijaḥ sarātram evotthāya sthorāṃl lardayitvā saṃprasthitāḥ*

The merchants woke up during that very night and once **they had loaded their pack-animals**, they departed.

*Samgharakṣitāvadāna* I; Cowell & Neil 1886: XXIII 334, l. 18f.

In contrast to the general practice in the recent English translations of (parts of) the *Divyāvadāna* by Tatelman (2005) and Rotman (2008–2017), I have translated *lardayati* as ‘to load’ and not as ‘to unload’, because the translation ‘to unload’ is not consistent with the meaning of the Middle Indo-Aryan and New Indo-Aryan forms and because it lacks good support from the context. Moreover, both Tatelman and Rotman follow the glossary of Cowell & Neil (1886: 695) and translate *sthora*-, the default object of *lardayati* (cf. infra), with ‘cargo’, but this word more likely means ‘pack-animal’, as I will discuss now.

No further instances of *sthora*- are attested in the *Divyāvadāna* (Edgerton 1953: 2, 611), but some related forms are known from Sanskrit lexica. An entry *sthaurī* is glossed as *pṛṣṭyaḥ* ‘pack-animal’ in two of the most famous dictionaries of Sanskrit synonyms, i.e. in the *Amarakośa* (2.8.2.14 ed. Colebrooke) and in Hemacandra’s

<sup>1</sup> Here and below, Cowell & Neil’s orthography has been adapted to modern standards and I have adopted Cowell & Neil’s (1886: 703) minor emendation *sthorāṃl* instead of the *sthorām* of the manuscripts, because I agree with them that this word is acc.m.pl. rather than acc.f.sg. (see below) and because the language of the *Divyāvadāna* is, apart from its vocabulary, close to standard Classical Sanskrit. The acceptance or non-acceptance of the emendation, however, does not affect my argument in any way.

*Abhidhānacintāmaṇi* (verse 1263). Later lexicographers only add variants such as *sthōrī* and *sthūrī* to this. In addition, Wilson (1819: 1027) quotes an entry *sthaura-* ‘a sufficient load for a horse or an ass’ from a late lexicon, the *Śabdārthakalpataru*.<sup>2</sup>

Still more important for our purposes is the testimony provided by Niya Prakrit *stora-* ‘large animal’ and Khovar *istōr* ‘horse’ and *istōri* ‘mounted, horseman’ (cf. Turner 1966: 796). For a discussion of the Khovar words, the reader is referred to Morgenstierne (1936: 659), but the Niya Prakrit evidence deserves to be examined here in somewhat more detail. The first person to relate Niya Prakrit *stora-* to the *sthōra-* from the *Divyāvadāna* was Burrow (1934: 514), who at the same time suggested that these words are borrowed from a Middle Iranian reflex of *\*staura-* ‘large animal’, which because of geographical and historical reasons one may wish to identify as Bactrian (α)στωρο / (ə)stōrə/ ‘idem’ (Sims-Williams 2007: 266).<sup>3</sup> Niya Prakrit *stora-* can refer specifically to 1) a ‘horse’, so for instance in CKD: 13, where the plural form *storaṃca* is paired together with *vaḍavi* ‘mares’ and taken up in the following sentence by *a[śpa]* ‘horse’, or 2) a ‘camel’, as in CKD: 367, where *uṭa* ‘camel’ is taken up in the sentence after it by *stora*. Yet a more general meaning ‘animal’ should also be posited, e.g. in CKD: 435 *manuśa atha vā stora* ‘a man or a beast’. These animals were used, for instance, for military aims (cf. e.g. CKD: 292 *seni storaśa* ‘cavalry’), but more relevant to our concerns are references to their use as pack-animals. I cite two examples below (exx. 4, 5) to make this clear, but still more evidence exists.<sup>4</sup>

- (4) [...] *tavigi storaśa nadha Caḍodade giṃnidavo aśi tanuvagade Calmataṃci aṃna darṣitaṃti ... taṃ kalaṃmi yatma Caül(\*e)śa tade nadha darṣitavo huati*

<sup>2</sup> I cite the first edition of Wilson’s work since he no longer includes the bibliographical reference in the enlarged second edition from 1832. If all these forms from indigenous lexicographers are to be trusted, one could interpret *sthaura-* as a *vṛddhi*-derivative from *sthōra-* ‘pack-animal’ (see below) and *sthaurin-* and its variants as derivatives with the possessive suffix *-in* from *sthaura-*, i.e. ‘possessing a load > pack-animal’. The word *sthūrikā-* in *Manusmṛti* 8.325 does not mean ‘a load placed on an ox’, as one sometimes finds in the literature, but probably ‘heel’, see Olivelle 2005: 320.

<sup>3</sup> For the rendering of Iranian *#st-* with Indo-Aryan *#sth-* one may want to compare Vedic *sthūṇā-*, which is possibly an early loanword from Old Iranian *\*stūnā-* ‘pillar’ (so e.g. Sadovski 2017: 716). I use *#* to indicate word boundaries. By contrast, the Khovar forms cited above should, on account of their accent, go back to a pre-form with *#st-* (cf. Morgenstierne 1932: 49), which would be in accordance with the spelling of the Niya Prakrit form. It is difficult to say whether the Khovar word was also borrowed in Middle Iranian times from e.g. Bactrian, or only at a later stage.

<sup>4</sup> See, for instance, CKD: 159, where ghee has to be unloaded from the *storaś*; CKD: 272, where all privately owned beasts have to help in transporting the taxes; CKD: 333, where mention is made of *yo masuaṃmi stora* ‘horse(s) (employed in transporting) the wine’, and CKD: 435, where a loaded camel dies on the road.

[...] **the load of the (?) beast(s)** was to be taken from Caḍota. The people of Calmatana **loaded** the corn from their own. ... At that time the *yatma* Caüle **had to pack his load** from that. (tr. Burrow 1940: 55). CKD: 305

- (5) *ede jaṃna[sa sto]ra nasti huati yatra udaga pačevara daršeyāti*<sup>5</sup>  
 These people did not have **a beast** at their disposal on which **they could load** water and provisions. (tr. mine). CKD: 842

Both of these examples bear witness to a collocation *stora-* + *vdarš* ‘to load’ < Iranian \**vdarz-* (cf. infra), which finds a close parallel in a passage in Manichaean Parthian, where *‘stwr’n* ‘pack-animals’ and *drznd/’bdrzynd* ‘they load’/‘they unload’ are used together, cf. ex. 6.

- (6) *cw’ywn kd wd’nm’n’n ky ’d wxybyh wd[’]n ‘stwr’n ’wt gr’mg<sup>6</sup> ’c wy’g ’w wy’g drznd ’wt ’bdrzynd<sup>7</sup>*  
 ..., just like nomads who, (moving) with their own tents, **pack-animals** and wealth from place to place **load** and **unload** (their stuff). (tr. mine).<sup>8</sup>  
 ed. Andreas & Henning 1934: 850

From Khotanese, one can furthermore cite the phrase *drqysi-barā stūra* (nom. pl.) ‘animals who carry a load’ (Pelliot chinois 5538a; ed. *KT* II 127.34) and one may also note that example (4) combines Niya Prakrit *stora-* with *nadha-* < Skt. *naddha-* ‘bound’, the word that is usually used in the Niya documents to refer to a burden bound around a transport animal and which can alternatively be denoted as *darša-* ‘load, cargo’.

It is because of the etymological identity between Niya Prakrit *stora-* ‘large animal’ and Sanskrit *sthora-* and in view of the collocation \**staura-* ‘animal’ + \**vdarz* ‘to load’ that I agree with Burrow that Sanskrit *sthora-* + *vlard* should be translated as ‘to load the pack-animals’. The fact that *sthora-* is likely borrowed from Bactrian will also become an important argument in section 3, where I will argue that *vlard* is borrowed from a Bactrian cognate of the same Iranian root \**vdarz-* ‘to load’ that underlies Niya Prakrit *vdarš*. Before coming back to this, I will first evaluate Kaczyńska’s (2020) recent Indo-European etymology of *lardayati* on its own terms in section 2.

<sup>5</sup> It seems possible to me that we should rather read *daršeyānti* here, but the akṣara in question is somewhat different from a standard (yaṃ), so (yā) cannot be excluded.

<sup>6</sup> Incidentally, some of the Iranian cognates of *gr’mg* ‘wealth, possession’ still mean ‘load, burden’ (e.g. Ossetic Iron *ærğom*/Digoron *ærğon* < \**grāma-*; cf. also Vedic Sanskrit *grāma-* ‘heap, multitude’ > Classical Sanskrit ‘village’), which may be relevant for the collocation of *gr’mg* with *‘stwr’n* in the Parthian passage under discussion.

<sup>7</sup> Incorporating a correction from Henning 1944: 139 fn. 5.

<sup>8</sup> Cf. Durkin-Meisterernst 2014: 335

## 2 Kaczyńska's etymology of *lardayati*

Having cleared up some philological details in the previous section, we can proceed to a discussion of the etymology of *lardayati*. With regard to this, Mayrhofer (EWAia: 3, 438) only notes that the etymology is “nicht klar”. Recently, Kaczyńska (2020) has argued for explaining *lardayati* as a further trace of a PIE root *\*lerd-*. This root has been reconstructed on the basis of nominal forms in a couple of Indo-European languages<sup>9</sup>: Greek λορδός ‘bent forwards’ < *\*lord-ó-* with a denominative verb λορδόομαι ‘to bend oneself supinely’ and other secondary derivatives; Armenian *lorc* ‘-k’ (pl.) ‘spasmodic inward curvature of the upper body’ < *\*lor(d)-sk-i-*; Welsh *lurc* m. ‘crooked foot’ < *\*lor(d)-sk-o-*; Gaelic *loirc* f. ‘deformed foot’ < *\*lor(d)-sk-eh<sub>2</sub>-*; Old English *lort*/*lyrt* ‘crooked’ and Middle High German *lorz*/*lurz* ‘left, sly’ < Proto-Germanic *\*lurt-* < PIE *\*l̥d-*, with a different ablaut grade, next to Old High German *lerz* *fuoz* ‘clubfoot’ with *lerz* < *\*lerta-* as if < *\*lerd-ó-* (see Nussbaum 2017: 245).<sup>10</sup> According to Kaczyńska (2020: 419–422), Sanskrit *lardayati* comes from an old causative of this root, i.e. *\*lord-éje-ti*. The noun *\*larda-* ‘load, cargo’, which is presupposed by New Indo-Aryan etyma (see below), comes, according to this analysis, from a τόμος-type *nomen actionis* *\*lórd-o-* ‘loading’.<sup>11</sup> Kaczyńska furthermore argues that *\*lerd-* would originally have meant ‘to carry a burden’, out of which the Indo-Aryan meaning ‘to load’ could develop. In the other languages, *\*lerd-* would have come to mean ‘to bend backwards due to a heavy burden’ and later ‘to contort, to deform’.

Kaczyńska's etymology would add an additional example to the list of Sanskrit words where a PIE *\*l* has possibly been preserved unchanged and could thus be quite important, but how likely is Kaczyńska's proposal, in fact? First of all, one does not really expect the preservation of Indo-European material in a late source

<sup>9</sup> The non-exhaustive presentation of the evidence which follows is mainly based on a comparison between Pokorny (IEW: 679), Beekes (EDG: 871f.), and Kaczyńska (2020: 418) and is not identical in every detail to Kaczyńska's overview. For instance, I use *\*-sk-* and not *\*-sk̥-* in my reconstructions, following Lubotsky (2001) in this respect.

<sup>10</sup> I leave Latin *luscus* ‘blind in one eye, one-eyed’ aside, because, as Kaczyńska rightly notes, it is not generally accepted that this form also belongs here.

<sup>11</sup> Because of their feminine gender, Kashmiri *lad* ‘heaped-up load’ and Hindi *lād* ‘load, burden’ are derived by Kaczyńska from *\*lardā-* and so from a PIE *nomen rei actae* *\*lord-éh<sub>2</sub>* (the notation with a laryngeal is mine). As the meaning of these nouns is so close to their masculine counterparts in other New Indo-Aryan languages, it seems better to me to assume that the feminine gender is secondary and to simply put them together with the other words from *\*larda-*. In this, I follow Turner (1966: 636). Masculine forms derived from *\*larda-* can also have the meaning of a *nomen rei actae*; cf. e.g. Punjabi *ladd* ‘load’.

like the *Divyāvadāna* and, precisely for this reason, Mayrhofer's etymological dictionary makes a clear break between material from Vedic and Classical Sanskrit, as loanwords are much more frequent than inherited material in the latter, with some notable exceptions like Classical Sanskrit *parut* 'last year' ~ Greek πέρυσσι 'idem' < PIE *\*perut(i)*.<sup>12</sup> Kaczyńska furthermore assumes that *lardayati* would be the only vestige of the original verbal use of the root *\*lerd-*, but as τόμος-type nouns (for which see now Nussbaum 2017) are generally derived from verbal bases, this is not too much of a problem and it would also be possible to explain *lardayati* as a denominative formation from *\*larda-*,<sup>13</sup> which would mean that only *\*lórd-o-* 'loading' would have to be reconstructed for PIE.

The main argument against Kaczyńska's etymology is rather of a semantic nature. If one compares the meanings of the outcomes of PIE *\*lerd* in the various branches, it is clear that they have two things in common. On the one hand, these cognates seem to point to an underlying meaning 'to curve'. On the other hand, words referring to various bodily defects are particularly common among them. Armenian *lorc* '-k' (pl.), for instance, translates Ancient Greek ὀπισθότονοι in the Armenian translation of Plato, *Timaeus* 84e (cf. Lidén 1906: 46f.), which in this case refers to a disease that is also called ὀπισθοτονία and which is "a **disease** in which the body is **drawn back** and stiffens, tetanic **recurvation**" (LSJ<sup>9</sup>: s.v. emphasis mine).<sup>14</sup> Likewise, Greek λορδός and the derived noun λόρδωσις refer to "a **curvature** of the spine which is convex in front" (LSJ<sup>9</sup>: s.v.), the antonym of which is κυφός/κύφωσις, referring to hunchbacks. These types of curvatures are explicitly described as bodily defects in the Greek medical tradition, given that the Graeco-Roman physician Galen (*Commentary on Hippocrates' de articulis* 18a.493.17; 18a.553.5) defines λόρδωσις as "διαστροφή τῆς ῥάχεως εἰς τὸ πρόσω", i.e. 'a forward **distortion** of the spine'.<sup>15</sup> In the same vein, the Germanic and Celtic evidence generally has to do with the notion 'crooked' and contains forms specifically referring to distorted feet. Semantically, Welsh *lurc* m. 'crooked foot',

<sup>12</sup> The above should not be taken to imply that later strata of Indo-Iranian can simply be neglected for the reconstruction of Proto-Indo-Iranian (cf. Kümmel 2017), and an up-to-date presentation of what Middle and New Indo-Aryan has to contribute to Indo-Iranian and Indo-European linguistics is a desideratum.

<sup>13</sup> I thank the anonymous reviewer for this suggestion and cf. other denominative forms such as Greek λορδόμαι. My own proposal, to be discussed in section 3, also starts from the idea that *lardayati* is denominative to *\*larda-*.

<sup>14</sup> The aspect of curvature is explicitly mentioned in the relevant passage from Plato (εἰς τὸ ἐξόπισθεν κατατείνειν 'it strains backwards').

<sup>15</sup> Similarly, Hippocrates (*De fracturis* 16.10) pairs the pass. inf. perf. διαστράφθαι 'to be distorted' with λορδόν, a passage that is also cited by Galen (*Commentary on Hippocrates' de fracturis* 18b.498), who has a *lectio facilior* pas. inf. pres. διαστρέφεσθαι.

Gaelic *loirc* f. ‘deformed foot’ and Old High German *lerz fuoz* ‘clubfoot’, a gloss of Latin *scaurus* ‘idem’ (Köbler 1993: 717), form a particularly close match and the Germanic denominative verb *\*lurtjan* ‘to deceive’ (cf. e.g. Old English *belyrtan* and Middle High German *lürzen*) fits a basic meaning ‘crooked’ as well, in that ‘crooked’ can be a synonym of ‘deceitful’ in English. Sanskrit *lardayati*, on the other hand, has no direct relation to either a meaning ‘to curve’ or to the category of ‘bodily defects’, as a result of which Kaczyńska’s suggestion to reconstruct an earlier meaning ‘to bend backwards due to a heavy burden’ is but an *ad hoc* postulate.

### 3 A new explanation of *lardayati*

In view of the problems with Kaczyńska’s etymology, I want to propose in this section a different and, in my opinion, more straightforward etymology of Sanskrit *lardayati* and its derivatives. *lardayati* looks like a productive denominative tenth-class verb based on an underlying noun *\*larda-* ‘load, cargo’, which, even though not attested as such in Sanskrit, can be safely reconstructed on the basis of various New Indo-Aryan cognates such as Punjabi *ladd* ‘load’ or Assamese *lād* ‘an elephant’s load’ (cf. Turner 1966: 636). As noted above, the late attestation of *lardayati*/*\*larda-* speaks against them being directly inherited from PIE, because of which we may rather be dealing with a loanword.

In section 1, it has already been hinted at more specifically that the collocation of *sthora-* and *vlard* suggests that *vlard* is a Bactrian loanword, which would also fit well with the typically Bactrian phoneme *-l-* in *vlard*. Indeed, a derivative of the Iranian root *\*vdarz*, inter alia ‘to load pack-animals’ (e.g. Avestan *vdarəz*; Khotanese *vdalś* and Pashto *vleḡ* and see EDIV: 62–64), also underlies Niya Prakrit *vdarṣ* (cf. Burrow 1934: 510f.), which can likewise be phrased together with *stora-*.

Speaking more generally, several parallels can be adduced for borrowings in this semantic field. First of all, Khovar *drazēik* ‘to load up’ is, just like Niya Prakrit *vdarṣ*, borrowed from a derivative of the Iranian root *\*vdarz* (Morgenstierne 1936: 667). In the same vein, Tocharian B *perpente\** ‘burden, load’ has been convincingly compared to Sogdian *prβnty* ‘burden’ < *\*paribandaka-* and is thus also Iranian in origin, whatever its exact source (cf. Adams 2013: 426f.). From Armenian, one can cite *beṛnawor* ‘burdened’, which is calqued on Parthian (or, less likely, Middle Persian) *bʾrwr* ‘loadened, burdened’ < OIr. *\*bāra-bara-* ‘he who carries a load’ (cf. Olsen 1999: 364), which is also indirectly preserved by way of the Elamite title *ba-ra-bar-rāš* (cf. Tavernier 2007: 417). In addition, Armenian *grast* ‘beast of burden’ has been identified as a loanword from Parthian *grst\**, indirectly attested in *grstpty* < *\*grasta-pati-*, an official in charge of transporting provisions and supplies (Olsen



1999: 873f.), while, somewhat more speculatively, Armenian *patat* ‘camel’s load’ has been argued to come from an Iranian *\*patāta-* (Olsen 1999: 901). Outside the Iranian domain and closer to our times, another example is furnished by English ‘cargo’, which was borrowed in early modern times from Spanish *cargo* ‘load, burden’.

In view of these considerations, it seems plausible that Sanskrit *\*lārda-* ‘load, cargo’ is borrowed from a so-far unattested Bactrian *\*λῑρτο* /lirtə/. This *\*λῑρτο* would be the regular outcome of the past participle *\*dṛṣṭa-* ‘that which is loaded > load, cargo’ from this same Iranian root *\*vdarz* ‘to load’. *\*d > l* is, of course, a typical feature of Bactrian (e.g. *λᾶδο* /lādə/ ‘law’ < *\*dāta-*), and for the second part of the word, one can compare *γῑρτο* /γirtə/, past stem of ‘to complain’ < *\*grṣṭa-* (*vgarz*) and *υῑρτο* /hirtə/, past stem of ‘to set free, to permit etc.’ < *\*hṛṣṭa-* (*vharz*) (cf. Sims-Williams 2007: 207, 272f.). Once borrowed as *\*lārda-*, a verb *lārdayati* can easily be made within Indo-Aryan (cf. supra).<sup>16</sup>

Two notes on the phonetic correspondences are still worth making. First, it may initially seem unexpected that Bactrian *ι* would have been borrowed with Sanskrit *a*. This is less of a problem, however, when we take the ancient descriptions of the phonetic character of *a* in Sanskrit into account. Pāṇini and other sources make it clear that *a* was a more closed vowel (*saṃvṛta-*) than *ā*, which they describe as more open (*vivṛta-*), from which we may infer that *a* stood for some kind of schwa (cf. Allen 1953: 57–61 and especially 58 fn. 4). Bactrian *ι* may, at least in some phonetic environments, represent a central vowel as well (perhaps [i]?), as is suggested by a couple of other loanwords where Bactrian *ι* is substituted by a schwa.<sup>17</sup> For instance, Bactrian *φρομῑγγο* /frəmingə/ ‘hope’ is borrowed into Tocharian A/B as *pärmaṅk* ‘hope’ (e.g. Sims-Williams 2007: 276), where according to the orthographic rules of classical Tocharian B, *a* stands for /ə/. In addition, if Niya Prakrit *lastuga* ‘some type of textile product’ comes from a Bactrian *\*λῑστογο*

<sup>16</sup> The same is true about Prakrit *laddaṇa-* ‘load’ < *\*lārdaṇa-*, which can easily have been made on the basis of *\*lārda-*: cf. e.g. doublets such as *kara-* and *karaṇa-*, inter alia meaning ‘doing, acting’. A similar explanation can account for the fact that some of the New Indo-Aryan derivatives of *\*lārda-* have the meaning of a *nomen actionis*, i.e. ‘loading’, seen e.g. in Odia *ladā/nadā*, whereas I assume *\*lārda-* to have been in origin a *nomen rei actae*, i.e. ‘that which is loaded’. Just as *kara-* from *√kar* ‘to do’ can mean ‘doing’, *\*lārda-* from a theoretical root *\*vlard* ‘to load’ can have been understood by native speakers to mean ‘loading’ next to ‘load, cargo’.

<sup>17</sup> The vowel should in origin still have been palatal, because of the palatalisation of dental sibilants adjacent to *-i-* which is suggested by Bactrian in Manichaean script (cf. Sims-Williams 2011). Bactrian *ι* can also be rendered with *-i-* in loanwords, e.g. Niya Prakrit *-vita/-vida* ‘lord’ < *-βῑδο* /vidə/ < *\*-pati*.

/listugə/, i.e. a derivative of λιστο /listə/ ‘hand’ < \**dasta-*,<sup>18</sup> this would be nicely parallel to Sanskrit \**lārda-* corresponding to Bactrian \*λῑρτο /lirtə/.

Second, the discrepancy between Bactrian -*pt-* /*rt-*/ and Sanskrit -*rd-* should be briefly addressed because both Bactrian and Sanskrit normally keep -*rt-* and -*rd-* distinct. Admittedly, no cogent explanation for this peculiarity has presented itself so far, and I will only make a tentative suggestion. Given that Bactrian \*λῑρτο /lirtə/ may have entered Sanskrit and other Indo-Aryan languages through the intermediary of Gāndhārī,<sup>19</sup> an explanation involving Gāndhārī phonetics may not be out of the question. Old Indo-Aryan consonant clusters of the type -*rC-* were regularly affected in Gāndhārī, as in other Middle Indo-Aryan languages, by assimilation of the preconsonantal -*r-* to the following consonant, resulting in a long version of the second consonant. As a result, clusters with preconsonantal -*r-* preserved in writing are best seen as historical spellings (see Baums 2009: 162f.). This probably means that /*rt-*/ and /*rd-*/ were no longer part of native Gāndhārī phonology, which in turn makes it conceivable that speakers of Gāndhārī unconsciously applied voice assimilation in this type of cluster when pronouncing e.g. Bactrian or Sanskrit. In other words, /*rt-*/ may have become /*rd-*/ in the mouths of Gāndhārī speakers, even though the evidence for this is unfortunately meagre.<sup>20</sup>

In theory, an alternative solution could be to assume a Bartholomae variant \**dṛžda-* ‘loaded’.<sup>21</sup> Although the outcome of \**-ržd-* does not appear to be attested in Bactrian, \**dṛžda-* would probably, through an intermediary \**liržda-*, eventually yield \*λῑρδο.<sup>22</sup> However, a Bartholomae variant \**dṛžda-* would be without close

<sup>18</sup> This interpretation goes *in nuce* back to Burrow 1935: 786 and is generally accepted (cf. e.g. Weber 1997: 31). It could not have been known at the time that the Bactrian word for ‘hand’ had this deviating vocalism, but the comparison with *pārmaṅk* makes clear that this poses no problem for this etymology.

<sup>19</sup> For the role Gāndhārī played as an intermediary language in the adoption of Iranian loanwords by other Indo-Aryan languages, see also Burrow 1973: 389.

<sup>20</sup> Circumstantial support may perhaps be found in occasional writings of ⟨*rt*⟩ instead of ⟨*rd*⟩ in Gāndhārī. Compare, for instance, loc. sg. *caturtiśami* (CKI: 219) vs. the more common and expected loc. sg. *caturdiśe* (CKI: 165, 223, 371, 373) < Sanskrit *caturdiś-* ‘belonging to the four directions’ or the Iranian loanword *khakhorda/khakhordi* ‘witch’ (reading and interpretation by Burrow (1935: 780f.); cf. also Bailey 1955: 14 fn. 1), for which a variant spelling *khakhorti(ya)* with ⟨*rt*⟩ has turned up in a recently published Niya document (CKD: 880). Note also Niya Prakrit *sujinakirta* ‘needle-work’ (~ Persian *sōzankard* ‘idem’), where an Iranian -*kird(a)* is rendered with -*kirta*. However, it cannot be excluded that these spellings have a different explanation.

<sup>21</sup> I owe this alternative reconstruction to Sasha Lubotsky (p.c.).

<sup>22</sup> This would be parallel to the development of \**-ržt-* to -*irt-* in a non-labial environment. A past stem λῑρδο is in fact attested in Bactrian, but in an unclear context, so its meaning and hence etymology remain in doubt (Sims-Williams 2007: 227). As remarked upon by de Blois (2013: 269), \**-d-* is not changed to -*l-* in the position after a voiced sibilant or a nasal.

parallel in Bactrian and forms such as γιρτο /γirtə/ < \**giršta*- < \**gršta*- (vgarz) and υιρτο /hirtə/ < \**hiršta*- < \**hṛšta*- (vharz), already cited above, make it clear that the voiceless variant is the default in Bactrian for these verbal adjectives.<sup>23</sup> This is in accordance with the general tendency of Middle Iranian languages to eliminate these voiced Bartholomae variants (cf. Harmatta 1964: 406–408). So, while \*λιρδο < \**dr̥žda*- is not to be excluded as such, it still seems safer to assume that \**lārda*- comes from \*λιρτο, despite the uncertainty which in that case remains concerning the rendering of -rt-.

## 4 Some notes on the larger historical context

This new analysis of *lardayati* also fits well with the compositional history of the *Divyāvadāna* and the larger historical context. However, an important *caveat* is necessary here because it can neither be deduced with certainty when, where and by whom the *Divyāvadāna* was composed, nor can the stories contained within this collection be used as historical sources in any straightforward way.<sup>24</sup> According to the *communis opinio*, the *Divyāvadāna* was compiled in the early centuries of our era by Buddhists of the *Mūlasarvāstivādin*-school in the northwest of South Asia (cf. Rotman 2008–2017: 6, 15–19). A Bactrian loanword is most likely to have entered Indo-Aryan languages in more or less this time frame and at the northwestern borders of South Asia. It would thus not be surprising if a Bactrian borrowing is attested for the first time in precisely the *Divyāvadāna*.<sup>25</sup>

The larger historical context in which such a borrowing fits has to do with the trade routes connecting Central and South Asia. The *Divyāvadāna* is an important witness to the connection between Buddhism and mercantilism, as nine of the stories contained in this compilation contain descriptions of caravans and maritime trade. While one cannot confidently say more than that these accounts of trade

<sup>23</sup> If Niya Prakrit *avalīka* derives from a Bactrian \*αβαλιφκο /əvališkə/ ‘swaddle’ < \**upadṛštaka*-, as I have recently argued (Schoubben 2021: 55), \*αβαλιφκο would also show the expected form with \*-ṛšt-. Alternatively, one could also reconstruct a Bactrian \*αβολιφκο /avəliškə/, also meaning ‘swaddle’, < \**abidṛštaka*-, which would then be an exact cognate of Sogdian βδ’yšk ‘swaddled’. Both /əvališkə/ and /avəliškə/ could have been rendered as *avalīka* in Niya Prakrit.

<sup>24</sup> See Rotman 2008–2017, where the reader can easily find references to older literature.

<sup>25</sup> It is also possible that the *Divyāvadāna* was composed slightly later than this period, which is, for instance, the opinion of Neelis (2011: 28 fn. 82), who suggests the third to fifth century. No scholar seems to assume that the *Divyāvadāna*, which is generally taken to be based on the *Vinaya* of the *Mūlasarvāstivādins*, was composed before the start of the Christian era. In general, the text probably contains material from different layers which cannot be easily stratified.

are in some way connected to historical reality, one option is that the *Divyāvadāna* mirrors the blooming trade of the Kuṣāṇa empire (cf. Rotman 2009: 12–14).

More significantly, there is secure historical evidence that the complex of trade routes in the northern part of South Asia, which was called the *Uttarāpatha* ‘northern route’ at the time, had been unified under Kuṣāṇa control. At the same time, the *Uttarāpatha* was connected to Bactria, which functioned as the major node for connecting the different trade routes of South and Central Asia, including those nowadays known under the name “Silk Road(s)”.<sup>26</sup> Because of this, it would not be too remarkable if the Bactrian language had also left its traces in the trade vocabulary of neighbouring languages such as Gāndhārī, Sanskrit or Sogdian, and \*λῑρτο would be a good example of this. The same would be true of *st(h)ora-* ‘pack-animal’, if that is indeed borrowed from Bactrian (α)στωρο / (ə)stōrə/. Sogdian *s’rtp’w* ‘caravaneer’ and Chinese *sābǎo* 薩保 ‘an official in charge of Iranian rituals’ could be yet another example of the role Bactrian played in the international trade routes of Central Asia, as Sims-Williams (1996: 51 with fn. 37; cf. also 2010: 126) has convincingly derived these from a Bactrian compound \*σαρτοπαο(o) /sārtəpāwə/ ‘protector of the caravan’.<sup>27</sup>

These historical circumstances also explain why *lardayati* is, on the one hand, found in a Buddhist Sanskrit text as the *Divyāvadāna* and in later Middle and New Indo-Aryan languages, but, on the other, not in Classical Sanskrit. The *Uttarāpatha* stretched over much of northern India, splitting itself into at least three main branches connected to one another in Mathurā, a hallmark of Kuṣāṇa influence in South Asia (Neelis 2011: 197–200). As a result, a word like \*λῑρτο can easily have been adopted into the various local vernaculars in northern India that form the

<sup>26</sup> Cf. Neelis 2011: 132: “Kuṣāṇa control of a network of routes between western Central Asia and the northern Indian subcontinent accelerated patterns of cross-cultural exchange, long-distance trade, and religious transmission from the first to third centuries CE,” and Neelis 2011: 144: “From about the second half of the first century CE to the middle of the third century CE, the Kuṣāṇas maintained control over important nodes on a network of overland routes connecting Bactria in western Central Asia with the heartland of northern India. A chain of cities ... linked the multicultural empire of the Kuṣāṇas to the Northern Route (*uttarāpatha*).” In general, see Neelis 2011: 132–144, 186–204.

<sup>27</sup> Because Sogdian normally forms this type of compound with *-p’k* < \**-pāka-* and not with *-p’w* < \**-pāwa(n)-*, Sims-Williams infers that *s’rtp’w* cannot be genuine Sogdian. The first part of the compound is Indo-Aryan *sārtha-*, which has recently (Schwartz 2009) been connected to Semitic words like Arabic *sayyāra(t)-* and Aramaic *šayyārtā-*, both ‘caravan’. The Sanskrit word could then go back to a South Arabic cognate of these etyma, folk-etymologically re-analysed as *sa-ārtha-* ‘having a goal’. This would mean that *sārtha-* reflects the maritime trade with Arabia and the Spice Road there, in a similar way as I argue \**lārda-* to be a linguistic remnant of the trade with Central Asia and the Silk Road.

basis of the New Indo-Aryan languages containing derivatives of the root *√lard*. In high-style Classical Sanskrit, a more technical and vernacular word of this type tended to be avoided, whereas the lexicon of Buddhist Sanskrit and Prakrit is more open to including such a word (cf. Burrow 1973: 61f.). One can compare the analogous case of Sanskrit *moca(ka)*- ‘shoe’ and *mocika*- ‘shoemaker’, also loanwords from Iranian (Bailey 1955: 21). These words and derivatives of them are attested in Buddhist Sanskrit and recorded in lexica, yet not found in Classical Sanskrit sources, but are still found in Prakrit (*moca*- ‘shoe’) and are well attested in New Indo-Aryan languages (e.g. Hindi *mocī* ‘shoemaker’) (cf. Turner 1966: 597; Burrow 1973: 389).<sup>28</sup>

## 5 Conclusion

To conclude, it seems best not to derive late Sanskrit *lardayati* ‘to load’ from a PIE root *\*lerd-*. Rather, *lardayati* can be interpreted as an inner-Indo-Aryan denominative of *\*larda-* ‘load, cargo’, conceivably borrowed from a Bactrian *\*λῑρτο* /*lirtə*/ ‘that which is loaded > load, cargo’ < *\*dṛ̥šta-*. An important argument in favour of this etymology is the collocation of *lardayati* with *sthora-* ‘pack-animal’ because of the evidence in favour of an Iranian collocation of *\*staūra-* and *\*√darz-*. If this etymology is accepted, *lardayati* is another piece of evidence for the role Bactrian played as one of the main languages in the international trade routes which were under the control of the Kuṣāṇa dynasty.

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<sup>28</sup> Similarly, the Greek loanword *paristoma*- ‘cushion’ < *περίστρωμα* is found in more vernacular sources such as the epics and the *Arthaśāstra*, but not generally in Classical Sanskrit. Iranian loanwords also often only occur in Sanskrit works that are restricted to the more western regions, for instance, in works from Kashmir (e.g. *divira*- ‘scribe’) or in works connected to Harṣa’s court in 7<sup>th</sup>-century Kannauj (e.g. *khola*- ‘helmet’ < Bactrian *χωλο\** < *\*xauda-*, which is indirectly attested in a personal name, see Sims-Williams 2010: 153).

## Abbreviations

|                  |                                                                                                                                                                                          |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CKD              | Stefan Baums & Andrew Glass, eds. (2022a). <i>Corpus of Kharoṣṭhī Documents</i> . URL: <a href="https://gandhari.org/corpus">https://gandhari.org/corpus</a> (visited on 05/13/2022).    |
| CKI              | Stefan Baums & Andrew Glass, eds. (2022b). <i>Corpus of Kharoṣṭhī Inscriptions</i> . URL: <a href="https://gandhari.org/corpus">https://gandhari.org/corpus</a> (visited on 05/13/2022). |
| EDG              | Robert S. P. Beekes (2010). <i>Etymological Dictionary of Greek</i> . 2 vols. Leiden & Boston: Brill.                                                                                    |
| EDIV             | Johnny Cheung (2007). <i>Etymological Dictionary of the Iranian Verb</i> . Leiden & Boston: Brill.                                                                                       |
| EWAia            | Manfred Mayrhofer (1986–2001). <i>Etymologisches Wörterbuch des Altindoarischen</i> . 3 vols. Heidelberg: Winter.                                                                        |
| IEW              | Julius Pokorny (1959). <i>Indogermanisches etymologisches Wörterbuch</i> . 2 vols. Bern & München: Francke.                                                                              |
| LSJ <sup>9</sup> | Henry G. Liddell et al. (1996). <i>A Greek-English Lexicon</i> . 9th ed. Oxford: Clarendon.                                                                                              |

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