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Footnotes on a Parthian sound change1

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To the memory of Jochem Schindler (1944–94)

Abstract
The treatment of Proto-Iranian *θw (PIE *tu) is one of the isoglosses distinguishing Middle Persian from Parthian and thus important for Western Iranian dialectology. The re-discussion of the Parthian development of this consonant cluster by Nicholas Sims-Williams presents a welcome opportunity for some notes on the matter. I will argue that there is some additional evidence in favour of his suggestion that the Parthian result is not -f- as previously assumed, but a consonant cluster. I will also suggest a modification of the steps that the development takes. The Middle Persian development of *θw as well as some related issues of historical phonology and Pth. orthography and Western Ir. are likewise discussed.

Keywords: Parthian, Middle Persian, Western Iranian, Historical phonology, Isoglosses, Iranian dialectology

1.

According to the classical treatments by Tedesco (1921: 199 f.) and Henning (1958: 96 f.), Proto-Ir. *θw (PIE *tu) gives Middle Persian h (MP ćahār ‘four’ vs. Avestan ćaδβārō, OInd. catvārah; MP ćihil ‘forty’ vs. Avestan ćaδβar’sat-, OInd. catvārimsat-; abstract suffix MP -iḥ < *-iya-θwa-), but f in Parthian, as in ćafār ‘four’, ćafrastr ‘forty’, and the abstract suffix -if in inscrip- tional Parthian.

This interpretation of the Parthian data needs to rely on explaining the additional -t seen in -iṭt, the variant of the abstract suffix seen in Manichean Parthian, as an additional suffix (Tedesco 1921: 200 suggests a derivation from *-iya-θwā-tā-). However, this approach does not offer an explanation for the Pth. verb (present stem) <nyḍf ʾr- > niḍfār- / (past stem) <nyḍfwr∂>

1 The present article is a revised version of a German paper. For reasons of typographical simplicity, θ, w and y are used instead of t, u and j for Proto-Iranian. As per Iranological tradition, italics represent the transcription (phonemical form) for Parthian and Middle Persian, but the transliteration (graphical form) for Sogdian. Manichean, Middle Persian and Parthian are quoted from and in the form of DMD unless otherwise noted.

Abbreviations: Av. = Avestan; B = Buddhist Sogdian; C = Christian Sogdian; Ir. = Iranian; Manich. = Manichean; M = (Sogdian in) Manich. script; MP = Middle Persian; OInd. = Old Indic (Vedic and Sanskrit); OP = Old Persian; PIE = Proto-Indo-European; Pth. = Parthian; S = (Sogdian in) Sogdian script. For bibliographical abbreviations see the references at the end of the article.

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niōfurd ‘to hurry (intr. and tr.)’, which is likely to derive from *ni-θwāraya- (cf. OInd. ṛvār), and the noun <nydrʾ r> niōfār ‘haste’ (Henning 1958: 97 n. 2). While Henning’s etymology is certainly convincing, his further suggestions are less so: he assumes that the word-internal result of Proto-Ir. *θw is Pth. -f-, while ūf in ni-ūfār- would show the result in word-initial position (for which there is no other example), and that ūf would have been adopted from the (unattested) simplex *ūfār-. This scenario is improbable not only because it implies the unlikely assumption that a cluster that is reduced to -f- in word-internal position would be retained word-initially, but also because the parallel consonant cluster PIE *du̯ar > Proto-Ir. *δw is reduced to Pth. b- word-initially (Sims-Williams 2004: 540).

Sims-Williams (2004: 540, 545) thus suggests the alternative solution that ūf is the regular result of *θw in word-internal position. For čafār ‘four’ he assumes a dissimilatory loss of the dental elements of the consonant cluster (*[tśafār] > [tśafār]), a development that also occurred in this word in other Ir. languages (e.g. Bactrian σοφαρο ‘four’ vs. regular λφ < *δf in αλφανζ - attain’ < *θwanja-, abstract suffix -ιλ(α)ς, Sims-Williams 2004: 542). For the word-final position, he posits a dialectal difference in the further development of *-ūf > -f for inscriptional vs. -ft for Manichean Parthian (Sims-Williams 2004: 543, 546).

2.

This set of changes is so far based on one example of each, but there seems to be additional evidence confirming Sims-Williams’ assumption that *θw gives Manich. Pth. -ft, also implying that the abstract suffix -īft does not contain an additional suffix.

2.1.
The word <pwrt> ‘bridge’ occurs in the Pth. hymn cycle Angad Rōšnān VI 57b. Although this is a hapax legomenon, its reading and meaning are reasonably clear. The existence of such a word in North-West Iranian is also confirmed by Gilaki purt, purd and Zazaki pırd ‘bridge’. Etymologically it is obviously related to Avestan parātu- (cf. Boyce 1954: 194: “< *parātu-”). However, a derivation from Proto-Ir. *prt- would raise a problem on the phonological side:

2 If the root had the shape PIE *tuerH (as sometimes assumed), the past stem would be *tyerH-to- > *thwarta-, in which case Pth. <nydfwrд could be read niōford (thus DMD 252b for the derivative <nydfwrдg> ‘hurried’). However, there are good arguments against the laryngeal (EWAia I: 685, de Vaan 2003: 56, LIV p. 655), so niōfurd < *-θwarta- < *-tyer-to- seems preferable (thus e.g. Ghilain 1939: 74; Boyce 1977: 64).

Weber (1994: 111 n. 11) interprets <nydrʾ r> as a compound related to MP dwār- ‘run, move’ (according to Weber an Avestan borrowing), but MP dwār- differs from the Pth. <nydfwrд> verb in its past stems (MP dwārist and dwārid). Weber’s etymology also involves the problem that word-internal *dw gives Pth. <db> ūv (Sims-Williams 2004: 540).


4 None of the contemporary varieties is a direct descendant of Parthian, but they can hint at the existence of otherwise unattested words and word forms in Middle West Iranian.
Proto-Ir. *ṛṛ following a labial otherwise, and expectedly,⁵ gives Pth. <wṛd> -urd, e.g. <bwrdrd> būrd <*brṛṛa- (past stem of <brṛṛ- ‘carry’), <mwṛdrd> mūrd <*mṛṛṛa- (past stem of <myṛṛ- ‘die’). Proto-Ir. *prṛṛu- should thus have given †<pwṛdrd> purd.

So it is worth considering whether Pth. <pwṛṛt> could derive from the oblique stem *prṛṛw-, i.e. from the form that has always been seen as underlying the MP cognate puhl (*prṛṛw- > *purṛṛ > puhl, HübSchmann 1895: 195, 207, Hoffmann 1986: 171, 181 n. 20).⁶ The application of the change suggested by Sims-Williams for Manich. Parthian (see Section 1) yields *prṛṛw- > *purṛṛ > *purṛṛt. Since a consonant cluster -ṛṛ is not permitted by Pth. phonotactics,⁷ *purṛṛt could have been reduced to purt by a dissimilation vs. the initial p- that is not unlike that in ćafār.

2.2. A derivation of <pwṛṛt> purt from *purṛṛt <*prṛṛw- suggests a parallel explanation for Pth. <mwṛdrd> mūrt ‘death’¹⁸ from *mūṛṛt <*mūṛṛṛ > *mṛṛw- (Nicholas Sims-Williams, personal communication). A dissimilatory loss of f in *mūṛṛt is surely as motivated as it is in *purṛṛt. On the other hand, *mṛṛw- would be the oblique stem of an as yet unknown Ir. stem *mṛṛṛu- besides the otherwise attested *mṛṛṛyw- (Avestan márdiiu-, Old Persian (uvä-)mārsiyu-,⁹ Olnd. mṛṛṛuvu-, but a stem *mṛṛṛu- / *mṛṛw- ‘death’ is indeed reflected in Sogdian mwṛwδ /μǔθụ̆/.¹⁰ This is likely to derive from the nominative and accusative forms *mṛṛụš and *mṛṛụm¹¹ while a derivation from *mṛṛyw- should effect a palatalization of the vowel (Sims-Williams, personal communication). Similarly, the derivation of Pth. <mwṛdrd> from Proto-Ir. *mṛṛu- suggested by Henning (1937: 85) should probably give †<myṛdrd>, cf. *krṛṛa- > *kyṛṛd (past stem of <krṛṛ- ‘do’), *mṛṛya- > <myṛṛ- ‘die’.¹²

So far as the existence of *mṛṛw- in Sogdian is concerned, the word is found in B pyśmwrδw¹³ ‘after death’ and in the phrase M zʿōmwrδw ‘birth-death’, B zʿt

⁵ *r̥r̥ > Pth. ur̥ is the regular development in labial context (Rastorgueva and Molčanova 1981: 172). For Old Ir. *r̥r̥ > Pth. d see Section 5.

⁶ The word is likely to have had an “amphidynamic” paradigm PIE *pṛṛu- / *prṛṛu-É- (Hoffmann 1986: 171). New Persian (classical) pul cannot come from *prṛṛu- since this would have given purd here as well.

⁷ There are no Pth. tautosyllabic clusters of three consonants (DMG 3.1.1.2.3); in order to avoid them, *ṛṛ in old sequences of *ṛṛ does not yield *ur̥, but probably gives *r̥r̥ from the outset, cf. *gṛṛt, gṛṛpt < *gṛṛṛt (past stem of *gṛṛyw- > ‘seize’).

⁸ Found in Angad Rōsnān VII 4a (cf. Boyce 1954: 154) in several copies.

⁹ On this word, see Gippert 2001.

¹⁰ In the alphabets used for the Manich. (M) and Buddhist (B) Sogdian texts, <δ̆> is used for δ̄ and θ̄ while the script of the Christian texts (C) has an extra letter <δ̄> for θ̄.

¹¹ *mṛṛu- with generalized θ̄ (from the oblique stem *θ̄w- is parallel to OP gādıu- from a paradigm *gātıu- / gādıu- (cf. note 24).

¹² <myṛṛ- shows that the palatalizing effect of a following *y is stronger than the labializing effect of m-.

¹³ Two attestations in Benveniste 1940 (for the attestation “8, 52” in Benveniste 1940: 269 and Gharib 1995: 337a read “8, 72”) and one in the British Library Frag. 6 line 5 (rather fragmentary context), where Sims-Williams (1976: 49) reads p[yʃim(w)rδ], but there seems to be a final -w also in this attestation (p[yʃim(w)rδ(w)), cf. the photo of Or. 8212/82 on the webpage of the International Dunhuang Project (http://idp.bl.uk).
Section 3)

Manich. Pth. <nydf
pwtys
<


inscriptional <nytpr
-


noted in Section 1.


of the <-tp-> is


in fact <mwrt>


such an output may be seen in Sogd. pwtyσδβ ‘Bodhisattva’ (besides variants such as pwt/οὑστβ), which could owe its <δβ> to Pth. <bw(γ)sdfr> bōdisaōf (thus Sims-Williams 2004: 544 f., see also Section 3).

If mwrdw is thus an inherited Sogdian form, Sogdian would show several words for ‘death’ (cf. mrc, B mwrtk(y)). The stem *mrθu- underlying Sogdian mwrdw would derive from a paradigm *mrθu- / *mrθw-, the oblique stem of which yields Pth. <mwrt>.18

3.

Another item to be considered in the discussion of the Pth. result of Proto-Ir. *θw is the inscriptionsal Pth. form <nytprywrt> ‘hurried’, corresponding to Manich. Pth. <nydf I> etc.19 It seems that the most straightforward interpretation of the <tp> is tf. In this case, one might consider a modification of the changes noted in Section 1.

Proto-Ir. *θw could have yielded Pth. tf first, which would be shown by inscriptionsal <nytpr> niffr-. In ‘four’, a dissimilation *[tʃatʃɒ] > [tʃafar]

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17 'zy myry ‘birth-death’ is found only in Benveniste (1940: 56, line 1194). Gershevitch (1946: 148) considers z δmrδw as a loan translation. Gharib (1995: 453b) follows this view, which might be the reason for her reading Sogd. z δmrδw [sic] /zadmurd/ and pyšmrδwθ(w) /pišmrδw/ (the paragraphs referred to in Gershveitch 1954 only note ṣ(m)rδw, though). On the other hand, she reads mwrdw /murθu/ (Gharib 1995: 221a).


19 The -d of the latter against the -t in <mwrt> can be explained by association (not only by popular etymology) to the past stem murd, perhaps additionally motivated by the final of the first member of the compound.

14 Indeed, Pth. <z’dmwrδ> zadmurd is quite well attested, and Pth. influence in the Sogdian Buddhist lexicon has been noted for other words as well. However, while Pth. influence in the use of Sogdian ṣ(m)rδw and in the formation of z δmrδw is possible, the assumption of a direct borrowing is faced with the difficulty that the attested Pth. forms are in fact <mwrt> and <z’dmwrδ> zadmurd.16 It would also be unlikely that Sogdian borrowed mwrdw from the stage of Pth. *murdf, since one would expect Pth. Çtf.15

15 Cf. Sims-Williams (1983: 139; 2004: 544), Sundermann (ibid.) a reading Sogd. mwrdw θδβ mwrδn r, etc.19 It seems that the most straightforward interpretation of the changes noted in Section 1.

16 In Parthian, other terms in this semantic field include <wś> ḍš ‘death’, <zg’m> izyām ‘flight, exit (of the soul from the body)’ and Ind. loanwords found in Buddhist contexts (<mn> maran, <prnybr n> parnīfrān, cf. Sims-Williams 1983: 140). MP shows marg ‘death’, but nothing that would correspond to Pth. <mwrt>. Conversely, marg is not found in Parthian. The MP hapax <zydmrgyh> (or <zyrmrgyh> (Sundermann 1984: 504) ‘-death’ is unlikely to be an error for <z’dmrgyh> ‘birth-death’ (Desmond Durkin-Meisterernst, personal communication), MacKenzie (apud Sundermann 1984: 504) considers a connection to Avestan jīti ‘life’, Sundermann (ibid.) a reading <zwδ> (fast) or <zwṣ> (force).

17 Paikuli inscription 21 d1, 03 (cf. Skjærvø 1983/I: 49, II: 79 f.).
<cf f> would have taken place.\textsuperscript{20} Word-final *-tf would have undergone a metathesis to -ft in Manich. Parthian and a reduction to -f in the dialect of the Pth. inscriptions, thence the abstract suffix Manich. -ift \(<\text{-yft}>\), inscriptionsal -if \(<\text{-py}>\). The output of Proto-Ir. *prθw- and *mrθw- would have been reduced to <pwr t> pur t and <m w rt> murt by the phonotactic ban on tautosyllabic clusters of three consonants (cf. note 7), either at the stage of *pur tf and *mur tf or in the metathesized stage of *pur tf and *mur tf.

The next stage would assimilate the tf to ðf. This would have concerned word-internal cases of tf other than ‘four’, thence Manich. <nydf r> niðfær-and derivatives vs. inscriptionsal nitfær-, as well as borrowed tf, which is likely to be seen in <bwd(y)sdf> bōdisaðf ‘Bodhisattva’ and <sdf> saðf ‘being (sattva)-’\textsuperscript{21}

This approach appears to account for the data in an economic way and motivate the dissimilation in ēafār particularly well. A development of word-final *θw > *tf > -f(t) also seems to be more straightforward than *θw > ðf (> *fð?) > -f(t). Pth. *θw > tf is also quite parallel to Sogdian and Khwarezmian *θw > ðf (Sims-Williams 2004: 541, 543), agreeing with these being “closely related languages” (Sims-Williams ibid.), and Bactrian *ðf (> λφ) would correspond to the stage of Manich. Pth. word-internal -ðf-.

Alternatively, we could consider an interpretation of both inscriptionsal <tp> and Manich. <df> as ðf (Jost Gippert, personal communication), comparing it to Avestan ōdōr- (oblique stem of pitar- ‘father’), which is likely to reflect /fθr-/\textsuperscript{22} and to the development of word-internal *ðw > Pth. <db>, if this is ðv as per Sims-Williams (2004: 540). However, the assumption implies that one would need to posit word-final developments of *θf > -f; *θf > -ft; plus *-tf > -θf for loanwords to account for <bwd(y)sdf> and <sdf>, a set that is perhaps not altogether compelling. Hence a development *θw > *tf > -f(t) appears to be preferable.

4.

There is another piece of evidence which is incompatible with the classical view of the development of *θw in Western Iranian. MP nixwār- (Manich. <nyxw r->, Pahlavi <n sb l->) ‘hurry, hasten, incite’ is obviously a cognate of Pth. niðfær-, but ēahār ‘four’ and ēhil ‘forty’ would lead one to expect MP ñnihār-.

\textsuperscript{20} *-θw- > Pth. -tf- also seems to be assumed by Weber (1994: 111 n. 11; his only example <cf f> ‘four’ is not attested, however). For word-final position, Lentz (1926: 253) and Huyse (2003: 85 n. 125) assume a development *-θw- > -ft (with dialectal variant -f) and interpret this as a metathesis, i.e. both also assume an intermediary stage *-tf. Rastorgueva and Molčanova (1981: 172) posit a development *θw > *θf > f for the word-internal position. One could also consider a dissimilation of the dentals in ćafrašt ‘forty’ < *ćatfrast and/or ćafārds ‘fourteen’ < *ćatfrāds, to which ćafār < *ćatfār could have been adjusted; but such an explanation would only account for Parthian, not the parallel developments in other Ir. languages.

\textsuperscript{21} Bactrian βωδοσατφο suggests that <bwd(y)sdf> was borrowed from a form with -tf (Sims-Williams 2004: 544).

\textsuperscript{22} Cf. Beekes (1988: 73, 86 and 235 s.v. ptar-). I am grateful to Michiel de Vaan for pointing out this reference to me.
In view of the discussion above and of the laconic note by Sims-Williams (2004: 540) “[nixwa:r-] < [nihwa:r-]”, one may wonder whether the MP development of *θw is not as traditionally assumed either, and could posit the assumption that nixwär- < *nihwär- < *niθwär- shows the regular MP result of *θw in word-internal position. The reduction seen in čahār and ċihil would then need to be due to a specific development here as well, which could have operated at the stage of *hw. A reduction of the consonant cluster would seem particularly likely in the multiple clusters arising in *čaθwṛθatam (cf. Av. čaθbarr’satam) > *čahwirhar23 (> via *čiθwihl or *čiθhird ?) > čihil ‘forty’, whose -h- would have been transferred also to *čahwär > čahār. In word-final position one would need to assume a reduction *θw > *hw > -h, which would operate in the abstract suffix -iθ < *-iθaθwa-) and in *prθw- ‘bridge’ > *puθr > puθl.24 The adverbial suffix -iθā would need to have generalized h by paradigmatic levelling from -iθ.25

This approach implies ad hoc assumptions for čahār, čihil and -iθā, but accounts for nixwär-, which is otherwise left without explanation.26 Moreover, a development *θw > *hw > xw agrees quite well with other MP sound changes: *θ yields MP h generally (e.g. pahn ‘wide, broad’, meθan ‘home’ vs. Avestan paθana-, maθedaθa-, Hübschmann 1895: 203). The sequence *hw < *θw merges with old *hw < PIE *sy, both resulting in MP xw.27 Also parallel is the development of *fw > MP hw (kahwan ‘old’ < *kaθwan, Bailey 1979: 62b, 64b). But this development needs to be later than the change *hw > xw discussed above, as the hw arising from *fw does not yield xw.28

5.
5.1.
The interpretation of Pth. <pwrτ> purt ‘bridge’s and <mwrτ> murt ‘death’ suggested in Section 2 implies that Manich. Pth. <t> and <d> encode two different phonemes also in the position after r. Now there appear to be exceptions exactly in this context: according to Boyce (1975: 17), <t> otherwise encodes t, but “rarely” also d when in the position “after r (an archaic spelling), e.g. wrτ- besides wrd- (ward-)”. This raises the question whether <rt> and <rd>
are written indiscriminately and refer to the same pronunciation.\textsuperscript{29} The data are as follows:\textsuperscript{30}

- inflectional forms of the verb <wrt-> / <wrd-> wart/d- ‘turn’;
- its derivatives <wrd(g)> ‘prisoner’, <wrd(y)wn> ‘wagon’;
- <rt> (<art->, Avestan aša-, Old Persian arta\textsuperscript{6}, OInd. rt-) besides <rd’w> (*artāyan-, cf. Avestan ašauvan-, OP artāvan-, OInd. rtāvan-); both occur only in connection with <prwrt> in a designation of the ether (one of the Manich. elements of light).<rt> could be an archaism of the religious language as is its cognate wrt-/urta/- in the Sogdian version of the prayer Ašm vohū (Nicholas Sims-Williams, personal communication, cf. Gershevitch 1976).

If one explains <rt> as an archaism or a borrowing from an older stage of the language, Pth. wart/d- ‘turn’ with compounds and derivatives is the only case of a variation <d> / <t> in Manich. Pth. orthography.\textsuperscript{32} At the same time, wart/d- is the only instance of Pth. <rt> other than <pwrt> and <mwrts>.\textsuperscript{33} The remaining cases are loanwords or unclear:

- <s’rt> sārt ‘caravan’ and <s(’rtw’) sartwā ‘caravan leader’ are borrowed from OInd. sārt\textsuperscript{b}a- and sārt\textsuperscript{b}avāha- (as is Sogdian s’rth, Sims-Williams 1983: 133, 135, 140);
- two items are unclear: the hapax <wrt’dgyft> (thus Sundermann’s reading of <’wr(t.gy)f> , cf. DMD 70a), perhaps it belongs to <wort/d>-; and <mrtyn> (twice attested), for which Henning (apud Sundermann 1973: 115) assumes a connection to Avestan aša-.\textsuperscript{34}

\textsuperscript{29} This phenomenon needs to be distinguished from cases which show a variation <d> / <t> (cf. Durkin-Meisterernst 2000: 169 ff.). These cases include <bwτ> / <bwd> būd (past stem of <bων> bav- ‘be’) in a proportion 1:4 (Durkin-Meisterernst 2000: 172), a similar proportion holds for pad ‘to, in’ (<pg> / <pd>). The variation <d> vs. <t> is found in instances deriving from Old Ir. t. Conversely, the Pth. result from Old Ir. d is always written <d> (e.g. <kd> kad ‘when’, Durkin-Meisterernst 2000: 172 n. 36). The remaining cases of <t> are orthographic variants of <t> (Boyce 1975: 17).

\textsuperscript{30} Corresponding Manich. MP words (where attested) have only <rd>.

\textsuperscript{31} Sims-Williams (1989: 325) connects Pth. <prwrt-> to Sogdian prwrτ ‘turn, change, become’ (<pari-wart->) and translates the attestation <w’d tftw dvg | ’wbd ny prwtyd> (verse) as “(. . .) and the searing wind does not prevail there”. Perhaps one could also consider a meaning within the semantic range of the other <cwrt/d->, e.g. “and the searing wind does not swirl there” or even “and the wind does not turn swirling there”, interpreting <prwtyd> in the light of its Sogdian cognate.

\textsuperscript{32} Boyce’s statement quoted at the beginning of this subsection and the note by Durkin-Meisterernst (2000: 173) to the same effect thus need to be adjusted.

\textsuperscript{33} Pth. art is also found in names from other languages (Sanskrit, Turcik).

\textsuperscript{34} Another example might be the unclear hapax <hw’twr>, perhaps “having good?” (but maybe this is not a complete word, cf. DMD 192a), if <t> here is a graphic variant of <t> and not of <d> (cf. note 29).
5.2.

The following points may be relevant in evaluating the orthography <rt/d>: Old Ir. t usually gives Pth. <d> post-vocally and after sonorants, and also after r, e.g. <mrdr> mard ‘man’ (Av. marta-), <mrdrifyt> mardift ‘manliness’, <srd> sard ‘cold’ (Av. saršta-), <srd ḡ> sardagh ‘cold (noun)’, <wxrd> wxard ‘eaten’ (<*hwar-ta-), <wxrdyg> wxardig ‘meal’, <nbd> nibard ‘battle’, <nbdrg> nibardag ‘warlike’, <krd> kird ‘done’ (Av. kwrta-), <krdg r> kir dagar ‘mighty’, <dird> dird ‘held’ (Av. dorsta-).

35 The voiced counterpart, Old Ir. rd, mostly yields Pth. rɔ, e.g. <zyrd> zirə ‘heart’ (<Proto-Ir. *zṛdaya>).36 However, Old Ir. ard gives Pth. ār (Rastorgueva and Molčanova 1981: 162), e.g. <w r> wār ‘flower’ (Av. varḍa-), <s r> sār ‘year’ (Av. sarḍa-). So there is an opposition between -rd < Old Ir. -rt and -rɔ < Old Ir. -rd only for vowels other than a, but no ḥard < ard vs. ard < art.

Connecting the Pth. data to developments in other Ir. languages, one might wonder whether the mixed orthography <rt/d> after a intended to mark a specific pronunciation for which there was no orthographic convention – perhaps voiceless r + t as Durkin-Meisterernst (2000: 173) assumes. Similarly, Av. <š >, which is the result of rt in certain contexts, has been assumed to represent voiceless r, retroflex t, or a fricative similar to Czech ř (Hoffmann 1986: 173 ff., de Vaan 2003: 602). Also noteworthy is the occasional lengthening of Av. a preceding <š >, e.g. xʾāša- ‘food’ <*hwar-ta-.37 In Balochi, Old Ir. *art gives ārt and *ard gives ār (e.g. wār-t ‘eats’ vs. war- otherwise; gwārag ‘blossom’38 vs. Av. varḍa-) while rt and rd after other vowels are preserved.39 Pashto likewise has retroflex r from Old Ir. rt and rd, but this is independent of the preceding vowel.40 So if the Pth. orthography <rt/d> did indicate a specific sound or sound cluster, the result of *art would arrange itself with similar phenomena in other Ir. languages.

It is not clear, though, why a variation <rt/d> is only found with the family <wrt/d-> and not with other words containing Old Ir. *art, or why a “specific pronunciation” is only marked for wart/d-.41 Perhaps the variation <rt/d> marks the...
word-internal development, which is exclusively found in the only Pth. present stem with Old Ir. art,\footnote{Pth. and MP (Pahlavi) nibard- ‘fight’ are probably denominative formations from nibard ‘battle’, cf. the secondary past stems Pth. nibardād (which is the only attested form of the Pth. verb) and MP nibardid (not from the zero grade), cf. OlInd. √prt.} while the word-final position shows the expected <rd> ard. Inflectional forms and derivatives such as <mr>n mardān (plural), <mrdf> mardift, etc., were surely related to <mr> mard `man’ by the speakers and thus do not undergo word-internal development, while a present stem mostly occurs with endings. If <rt/d> is the word-internal development, it is perhaps less likely that <tr/d> stands for a devoicing which would not have taken place in word-final position, and a retroflex or fricative output would seem more likely.

6.

Summarizing the argument above, Manich. Pth. <t> and <d> encode two different phonemes also in the position after r, and Pth. <pwr> purt `bridge’ and <mwr> murt `death’ are to be read as purt and murt. These words are likely to go back to *prθw- (the form from which MP puhl also derives) and *mrθw- (while Sogdian mwrθ derives from *mrθu- with generalized θ). These are the oblique stems of *prtu- and *mrtu-, the former familiar from Av. pər̥tu-, the latter otherwise only found in Sogdian.

Pth. <pwr> ‘bridge’ and <mwr> are, then, additional evidence for Sims-Williams’ claim that Proto-Ir. *θw does not yield Parthian f as previously assumed, but results in a consonant group, which would be reduced in Pth. *purft and *murft. By the logic suggested here, -fı would be the Pth. word-final outcome of *θw in Manich. Parthian (vs. -f in inscriptional Parthian) vs. -if- (thus in inscriptional Parthian) > -of- (Manich.) in word-final position.

Middle Persian may likewise show a consonant cluster as the result of *θw, yielding *hw > xw. In ēhār ‘four’ and cihil ‘forty’, specific processes must then have been at work to effect the simple h; these would be parallel to cluster reductions in these numbers in other Ir. languages.

Table 1 presents the Pth. sound changes of r and *r + dental discussed in this paper in comparison with some data of selected Western Ir. languages.

Examples for Zazaki include the cognates of Pth. words mentioned above: for *ard: se’r ‘year’; *rd: sefi ‘heart’ (Paul 1998: 169), vilike ‘flower’; *rt: kerd-, berd- (past stems of ‘do’ and ‘carry away’); *art: serd ‘cold’; *rtw: purd ‘bridge’ (cf. Section 2.1). Since *rt appears to give erd also in labial context (berd-< *brta-), one could perhaps consider vilike a loanword (thus Paul 1998: 169), so that the regular output of *rd in labial context could be er or perhaps ir (cf. e.g. pir ‘full’, which at least shows *r in labial context although not *rt).

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Sims-Williams, personal communication, cf. Sims-Williams 1985: 163 n. 1). Sogdian compounds and derivatives corresponding to Pth. <wrd/t> are well attested, and always written with <rt>, e.g. prw(√)rt- ‘turn’, zw(√)rt- ‘return’, wrtn ‘wagon’; the interpretation of w’rō ’ (Frag. Len. 93, 8) is not clear, but it is unlikely to show *w’rō- ‘turn’ (Pavel Lurje and Nicholas Sims-Williams, personal communication). Perhaps a denominative verb w’rν- ‘rain’ is present here (Yutaka Yoshida, personal communication).
In Balochi, the contexts in which *r̥ yields ir and ur are not identical to those of MP and Pth. ir, ur. While ir is the result in palatal contexts and ur in labial ones, the neutral context shows Balochi ur, but MP / Pth. <yr> ir, e.g. Balochi turs- vs. MP, Pth. <tyrs>- ‘be afraid’, kurt vs. MP, Pth. <kyrd> ‘done’. Other examples include *rd: zird ‘heart’, *rd: gwār ‘blossom’, *rd: sār ‘cold’. Owing to the absence of other examples for the context *r̥θ, it is impossible to decide whether Balochi puhl ‘bridge’ is a MP loanword or not (Korn 2005: 143–8, 328, 121).

### Bibliography


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<table>
<thead>
<tr>
<th>Proto-Iranian</th>
<th>Parthian</th>
<th>Zazaki</th>
<th>Balochi</th>
<th>Middle Persian</th>
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Table 1. Development of *r, *r̥ + dental

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43 The Pahlavi orthography is ambiguous and could also stand for ār (then identical with the Pth. output), cf. Hoffmann (1986: 183 n. 38). At any rate, New Persian has āl in relevant words.


