

Historical Developments of Pashto and Sogdian Phonologies from the Proto-Iranian Language

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Abstract

Pashto is an Iranian language (Morgenstern, 1982) classified as historically belonging to the northeastern branch of the Iranian family. This linguistics study is comparative and historical in nature. It carries out a lexical comparison of Pashto and the Sogdian language, and investigates their phonological development by further expanding their corss-comparison with data from the Proto-Iranian language. Drawing on secondary data available in Sogdian and Pashto and on the reconstructed roots of Proto-Iranian, the current study seeks to describe the historical reciprocal changes in the phonology of Pashto and Sogdian. Moreover, it discusses thoes changes in each language thoes they have in common, and the retentions of Proto-Iranian reflexes in Pashto and Sogdian, highlighting differences and commonalities in their clusters. Proto-Iranian sonorants are of paramount importance as isoglosses. This suggests that the forefather of the Pashto language was historically in close contact with the Sogdian language and can be located in Central Asia, from where it migrated to its present homeland. This migration is witnessed in the living language by the development of retroflex sounds in Pashto precisely due to contact with the Indo-Aryan.

Keywords: Pashto, lexical comparison, Sogdian, phonological development, Proto-Iranian.

1. Introduction

Both the historical and comparative approach helps in the reconstruction of linguistic systems of the Proto-forms of dead languages. The goal of comparative linguistics is to construct language families and reconstruct proto languages. Historical linguistics is the name of the historical study of language change and development. Languages share characteristics on the basis of three terminologies: firstly ‘genetically’ it tells us that languages are similar because they have been descendent from a common parent, secondly ‘areal affiliation’ shows similarities among languages because of

the intense contact among them, finally ‘typologically’ they describe sameness. With the help of historical linguistics, lexical, semantic, phonological and morphological changes are investigated.

One aim of the current study is to explore phonological change i.e. how sounds are developed in one language or transferred from one language to another. This research strictly focuses on a phonological comparison of the lexicon, in order to find out cognates in Pashto and Sogdian, then it compares their phonological forms after bringing in a contrast of their Proto-Iranian parent too and to find out the archaisms and innovations that exist in Pashto and Sogdian. In this case, while the research also makes use of words that may have been employed through different mechanisms of derivation, it only restricts itself to the structure of the Proto-Iranian roots and not enter into any analyses of the structure of such formations, compound or otherwise, and their affixal elements.

In this research secondary data is used for exploring differences and similarities between Sogdian and Pashto. The secondary data is collected mostly from the literature available on Sogdian and data on Pashto is obtained from the Pashto dictionary Nicholas and Asmatullah (2002), literature and other sources. Similarly, for the Proto-Iranian language and the roots of the Proto-Iranian items, the researchers use several resources of the Indo-European literature.

2. Literature Review

Lexical Comparison

In lexical comparison, the lexicons of genetically related languages are compared. Cognate is a word which shows comparison with the word of another language. According to Fortson (2011) cognate can be defined as a lexicon which shows relationship with a word of sister languages, thus to describe that these comparable words having been received by these sister languages from a common word of the Proto- language from which they are derived.

Sogdian Language and its Phonological Developments

Sogdian was in use for communication in Uzbekistan and Tajikistan. Formerly, these countries were included in the Sogdian Kingdom. But,

some written documents in Sogdian show that it has also been used in Xinjiang China. Because of these Sogdian documents discoveries in Xinjiang, Turfan and Dunhuang, we can suggest a possibility that people from the Sogdian Kingdom were traders and they used the Silk Road for their trade and leaving written materials along the way. Samarkand and Bukhara are also considered as native places of Sogdians. Sogdian descendents from the Eastern branch of Iranian languages, thus bearing similarities to Avestan language. The ending period of Sogdian was 10th century; because of the Islamization in 8th Century CE affected Sogdian language causing its decline.

Sogdian is a dead language, and its phonology has been composed on the basis of the comparative method and internal reconstruction. Yoshida (2016) described the phonemic inventory of Sogdian in which there were 27 consonants, some allophones, while the consonants such as voiced stops and (ŋ) and marginal phonemes (ts, l, and h) mainly appeared in foreign words.

Yoshida (2016) main concern was to trace the history of Sogdian, its phonemic and orthographic system, phonological development, morphology and lexicon. Sogdian script was derived from Aramaic script. Yoshida described its phonemic inventory: Sogdian vowels have been presented by three meter lections, i.e., w, y and [ā] [(w is equal to w, u/ū, o/ō) and (y was used for y, i/ī, e/ē, and ā)].

Short vowel /a/ was not pronounced except at initial and final position. Sogdian also possessed three rhotacized vowels, one nasal stop: /ər/, /ir /, /ur /, and /m̄/, i.e., /m̄əry/ ‘bird’, /kirm/ ‘snake’, and /kam̄θ/ ‘city’, and front rounded /ü/ and /ö/ vowels.

In the consonant system of Sogdian only the fricatives possessed voiced opposition (β, δ, γ, and ž). Furthermore, some complex consonants clusters have been described by him, for example /xšn/ at coda position in /roxšn/ ‘light’, /pθt/ cluster in /xēpθt/ ‘one’s own’, /δtk/ cluster in /γurδtk/ ‘kidney’. Furthermore, there are some consonant clusters, in Sogdian that have been developed from Old-Iranian languages such as /sp/ <OI./tsw/, /zβ/ <OI./dzw/ ‘tongue’, /δβ/ <OI./dw/, /δβr/ ‘door’, /ž/ <OI./dr/, /žwk/ ‘healthy’.

Moreover, archaism in Sogdian has been described through examples. Sogdian has preserved Proto-Iranian voiceless plosives and affricates (p, *t, *k, and *č) even after vowels as /a’p/ ‘water’

<PI.*āp, /w't/ 'wind' <PI.*wāta, /wt'k/ 'country' <PI.*awa-tāka, /w'c/ 'to send, release' <PI.*wāča. Also, Proto-Iranian fricative /θ/ has been preserved by Sogdian as in /xēpθ/ '(one's) own' <PI.*xwaipaθya. Voiced stops has been restored, in Sogdian, only after nasalized vowels, e.g., /samg/ 'stone' <PI.*asanga.

Pashto Language and its Phonological Developments

Pashto is a Modern-Iranian Language. It is spoken in Afghanistan, as well as in the Pakistani provinces of Khyber-Pakhtun-Khwa and Balochistan and in the Federally Administrated Tribal Areas (FATA). According to Septfonds (2006), Pashto seems to have been included in Northeastern group of Iranian languages from a genetic viewpoint, also 40 million speakers of Pashto across Afghanistan and Pakistan have been mentioned, while only in Pakistan 24 to 25 million speakers have been recorded (Brown & Ogilvie, 2009, p. 846). According to Morgenstern (1982), the original home of Pashto may have been in Badaksan, somewhere between Munji and Sangl. From the perspective of historical linguistics, it has been determined that the protoform of Pashto must have been in contact with Gathas Avestan.

Morgenstern (1982) argued that, from the 10th to 16th century, the Pashto language possessed thirty-one consonants, in which twenty-six occurred in Pashto pure words. These twenty-six consonants of Pashto are rewritten from his work: /k, g, ɣ/; /t, d, n/; /p, b, m/; /ŋ/; /č, j/; /c, j/; /s, š, x/; /z, ž, ǰ/; /r, r, l/; /y, w/, and /h/. Four to five retro-flexes have been added into the phonological system of Pashto, and those were adopted from the Indic languages, while the glottal stop came from Arabic language. Nine short and long vowels such as /a, i, u, ə/; /ā, ī, ū, ē, ō/ and three diphthongs i.e. /āy/, /āw/, and final /əy/ for Pashto have been described.

Morgenstern (1982) also explored processes of vowel changes known as 'rising', the Proto-Iranian /a/ raised to /o/ (as in Pašt./mor/ 'mother'). By nasalization, /u/ became nasalized to /ū/ before nasal sounds / m/ and /n/ (Pašt./nūm/ 'name' and /lūna/ 'abscess'), this example describes "regressive contact assimilation". The Proto-Iranian /d/ changed into /l/, which indicates the process of lenition (Pašt./lās/ 'hand' <PI.*dastaas). Also, in many cases /a/ underwent the process of 'lengthening' and changed into long /ā/ (Pašt./ plār/ 'father'). Another

example of tensing, or lengthening, is the lengthening of /u/ and /i/ before original cluster, i.e., Pašt./spīn/ ‘white’ <PI.*spiθna, Pašt./ūx/ ‘camel’ <PI.*ušθra. Moreover, archaism can be seen in the following examples, in which Pashto has preserved Proto-Iranian sounds. Proto-Iranian /y/ has been retained in the Pashto language (e.g., Pašt./yor/ ‘husband’s sister’), but in many cases, it is dropped before front vowel /i/ (e.g., in Pašt./y’ina/ > ’ina ‘liver’ <PI.*yaxn-). The dropping of /y/ shows the phonological process of ‘aphaeresis’. As well as, Proto-Iranian /x/ restoration in Pashto shows the conservatism of Pashto, as in /xor/ ‘sister’.

3. Data Analysis

The following are possible cognates among Sogdian, Pashto and Proto-Iranian, and possible explanation for cognates as well:

1. Pashto. /pṛak-ezi/ ‘shining/lightning’ and Sogdian: (Buddhist Script) /β'm'nt/ ‘shining’ can be derived from the Proto-Iranian root /*baH/ ‘to shine’.

Pashto word has the stem /pṛak-/, while a comparable Sogdian word is /β'm'nt/, both of which derive from the Proto-Iranian root *baH. The Proto-Iranian /b/ in Sogdian developed into fricative /β/, while in the Pashto into voiceless /p/.

2. Pašt. /wex/ ‘distribute’ and Sog: (BS). /b'y/ ‘to give/bestow’, (Sogdian Script) /β'xt°/ ‘luck/fortune’ can be compared with Proto-Iranian root /*baǰ1/ ‘to bestow/divide/ have a share/to give/apportion’.

This example shows that the Proto-Iranian stop /b/ turned into fricative /β/ in Sogdian and into approximant /w/ in Pashto. Proto-Iranian cluster final /xš/ was preserved by Sogdian but in Pashto it seems to have been simplified to /x/ while the final consonant /š/ of the cluster has been dropped.

3. Pašt. /wat/ ‘break/hole’ and Sog: (Manichean Script) /β'xt-wnyy/ ‘internal/conflict/schism’ can be compared with Proto-Iranian root /*baǰ2/ ‘to break’ homophonous to the one given above.

The Sogdian word coming from the Proto-Iranian root /baǰ/ is /β'xt/, while the Pashto word coming from the same root is /wat/. Sogdian

again shows that Proto-Iranian stop /b/ has been developed into the fricative

/β/, but Pashto again indicates a development of /b/ into approximant /w/.

4. Pašt. /band-awal/ ‘to bind’ and Sog: (BS). /βynt/, (Christian Script) /bynt/, (MS). /bynd/ ‘to bind’ can be compared with Proto-Iranian root /*band/ ‘to bind’.

Pashto word /band/ again seems to be a loan, which shows the restoration of word-initial /b/ as a result of borrowing from some Iranian language. Sogdian clearly shows different developments of /b/, as attested in different scripts. In Buddhist script /b/ turned into /β/, yet Manichean and Christian Scripts show retaining of Proto-Iranian /b/. Furthermore, in Sogdian the development of /nd/ cluster is different. In Buddhist and Christian scripts the /nd/ cluster has devoiced into /nt/ and in Sogdian script it is retained as /nd/.

5. Pašt. /writ/ ‘roasted’ and Sog: (MS). *βr'xs- ‘roasted’ may be compared with the Proto-Iranian root /*bra(i)j/ ‘to roast/bake’.

The Proto-Iranian cluster /br/ changed into /βr/ in Sogdian but into /wr/ in Pashto. The same pattern of lenition is again apparent. The Proto-Iranian final affricate /j/ weakened into the fricative /x/, as attested in Sogdian. In Pashto it has been dropped altogether.

6. Pašt. /wīžd/ ‘long’ (of the Waziri dialect) and Sog: (BS). /βrz'y/, (MS). /βrzyy/ ‘long’, (BS). /βrzkw/ ‘length’, (CS). brzy ‘loud’ can be compared with the Proto-Iranian root /*barz/ ‘to make high’.

This example also gives us the evidence of Proto-Iranian /b/ development into /β/ in Sogdian and into /w/ in Pashto. In Pashto, an interesting metathesis has occurred in which the Proto-Iranian cluster /rz/ has been changed into /žd/ followed by the fortition of /r/ from /zr/ and the eventual retraction of /z/ into a palatal affricate /ž/.

7. Pašt. /wṛ-əl/ ‘to carry something’ and Sog: (BS). /βr/, (CS). /br/, (CS). /βr/ ‘to carry’, (MS). /βr/ ‘to carry’ can be compared with the Proto-Iranian root /*bar/ ‘to bring/carry’.

This example also shows the development of PI /b/ into /β/ and /w/, respectively in Sogdian and Pashto. Proto-Iranian /r/ remains the same in Sogdian, but has been changed in Pashto as a consequence of

retroflexion into /r/. The changing of Proto-Iranian trill /r/ into retroflex /r̥/ in Pashto shows the influence of Indic languages. But also note the Waziri Pashto form /wri-/ ‘to carry (something)’, which lacks retroflexion and is slightly more conservative.

8. Pašt. /buy-awal/ ‘to smell’ and Sog: (BS). /βwδ/ ‘to smell’ may be compared with the Proto-Iranian root /*baud/ ‘to smell’.

As we have noted early, Pashto has somehow retained the Proto-Iranian /b/, however its presence can be more reasonably ascribed to borrowing; hence the Pashto word /bu/ is quite like to be a loan from Persian, which has restored the word-initial stop /b/. Sogdian, as usual, show the fricative /β/ for /b/.

9. Pašt. /wu/ ‘he was’ and Sog: (SS). /βw-/ , (BS). /β(w)-/, (CS). /b(w)-/, (MS). /βw-/ , (MS). /wβ-/ ‘to be/become/happen’ may be up against Proto-Iranian root /*bauH/ ‘to be/become’.

Christian Sogdian script shows the retention of Proto-Iranian /b/, while other scripts of Sogdian language provide evidence for the lenition of Proto-Iranian /b/ into /β/. In Pashto /b/ has again been weakened into the approximant /w/.

10. Pašt. /cašal/ ‘to drink’ and Sog: (BS). /cš'nt/, (BS). /cš'nty/, (CS). /cšnt/ ‘drink’ can be compared with the Proto-Iranian root /*čaš/ ‘to drip/to drink’.

In this example, Pashto and Sogdian resemble each other; the word-initial Proto-Iranian palatal affricate /č/ has been fronted to the alveolar affricate /c/ while the word-final Proto-Iranian sibilant /š/ has been retained.

11. Pašt. /šikawal/ ‘to grab’ and Sog: (BS). /c'x-/ ‘to do battle/fight’, (SS). /c'xš/ ‘to grasp/grab’ can be in contrast with the Proto-Iranian root /*čak/g/ ‘to strike/hit’.

In Sogdian, the Proto-Iranian palatal affricate /č/ turned into the alveolar affricate /c/, whereas in Pashto it seems to have undergone direct lenition and developed into the fricative /š/. An explanation for the change in Pashto seems to be the high vowel following the affricate as the affricates are more prone to undergo fricativization when they come in

front of high vowels. Furthermore, Pashto retains the final voiceless stop /k/ but in Sogdian it has been lenited to the fricative /x/.

12. Pašt. /ancəy//incəy/ ‘woollen thread/yarn’ and Sog: (CS). /šwm/, (MS). /šwm/ ‘to sew’, (CS). /šwmqy/ ‘sewing’ can be derived from the Proto-Iranian root /*čaiH/ ‘to sew’.

This example shows another diverging development between Pashto and Sogdian. The Proto-Iranian palatal affricate /č/ has been developed into the fricative /š/ in Sogdian, in contrast Pashto retains it as an alveolar affricate /c/. This time it is Sogdian, which shows a high vowel after the word-initial segment so that we may expect that the palatal affricate was directly lenited into the fricative. In Pashto, the word has survived in a derivation /ancəy/, which shows that the outcome of the Proto-Iranian /č/ was clearly the alveolar affricate /c/. One exception in Pashto is the Waziri dialect, in which the affricate /c/ has been further weakened into fricative /s/ obtaining /snay/.

13. Pašt. /šum-/ ‘to drink/gulp’ and Sog: (BS). /š'm/ ‘to swallow/to drink’ may be up against Proto-Iranian root /*čjam/ ‘to swallow’.

In this example, both Pashto and Sogdian share a common innovation in which the Proto-Iranian word-initial palatal affricate /č/ has been lenited to fricative /š/, and both the languages retain the final bilabial nasal stop /m/.

14. Pašt. /xwa-ciži/ ‘to move’ and Sog: (SS). /šw-/ ‘to go/walk/move’ may be compared with the Proto-Iranian root /*čiau/ ‘to move/go’.

In this case, the Proto-Iranian initial palatal affricate /č/ has been changed into fricative /š/ in Sogdian clearly owing to the presence of the high vowel after it. On the other hand, the Pashto example is somewhat complicated. First of all, it is a compound which has /xwa-/ prefixed to the original Iranian root. The presence of the alveolar affricate /c/ in Pashto, in spite of the following high vowel /i/ owes to the structure of the word. The syllabification of the Pashto word would be as /xwac.iž.i/. In other words, because there is a syllable boundary between the affricate and the high front vowel, so we find the two in different syllables, as a result of which the Proto-Iranian palatal affricate /č/ has a reflex in the alveolar affricate /c/ in Pashto.

15. Pašt. /luma/ ‘snare/noose’ and Sog: (BS). /δ'm/, (CS). /d'm/, (MS). /δ'm/ ‘net’ may be derived from the Proto-Iranian root /*daH/ ‘to bind’.

The most interesting feature of these examples is the modification in the semantics of the Pashto and Sogdian words. To put it in another way, the bilabial nasal stop /m/ appears to be an affix, more specifically suffix, of derivation. The word-initial Proto-Iranian dental stop /d/ has been lenited to its corresponding fricative /δ/ in Sogdian. Whereas in Pashto too there is lenition of alveolar lateral /l/. Both the words are a derivation based on the Proto-Iranian root /daH/.

16. Pašt. /līd//wīn-/ ‘to see’ and Sog: (BS). /δyn'k/, (BS). /δ'yn'k/ ‘mirror’, (MS). /nδ'yk/ ‘appearance’ may be derived from the same Proto-Iranian root /*daiH/ ‘to look/see’.

In this case, again Pashto has an alveolar lateral /l/ in the word-initial position for a Proto-Iranian stop /d/; note that the Pashto form /wīn-/ is suppletive in that it is obtained from a different Proto-Iranian root. On the other hand, the same Proto-Iranian root can be identified in Sogdian in the derivative forms given above, whose semantics can be clearly connected to the original Proto-Iranian root. So the word-initial Proto-Iranian dental stop /d/, turns up as the corresponding fricative /δ/ in Sogdian.

17. Pašt. /lar-əl/ ‘to keep’ and Sog: (SS). /δ'r/, (BS). /δ'r/, (CS). /d'r/, (MS). /δ'r/ ‘to have/hold/keep’ may be compared with the Proto-Iranian root /*dar/ ‘to hold/keep/to dwell’.

In this example, the Pashto root coming from Proto-Iranian root /dar/ is /lar/, in which again the Proto-Iranian stop /d/ has been converted into lateral /l/ and the final Proto-Iranian /r/ is retained in Pashto. However, in Sogdian the Proto-Iranian /d/ developed into fricative /δ/ attested in Buddhist, Manichean, and Sogdian scripts, while the Christian script gives the evidence of restoring /d/. The lateral /r/ from the Sogdian examples is a suffix of derivation.

18. Pašt. /zdōyəl/ ‘to rub/grind/polish’ and Sog: (BS). /δ'w/ ‘to smear/plaster’ may be compared with the Proto-Iranian root /*dauH/ ‘to smear/rub (on)’.

The Pashto word in question appears to be a derivation with some sort of prefix /z/. Due to the presence of this prefix, we find that the dental

stop /d/ was not lenited to /l/. On the other hand, the Sogdian word does have the expected dental fricative /ð/ where the Proto-Iranian root has an initial dental stop /d/. The change in Sogdian is thus consistent.

19. Pašt. /lwaš-//lwašəl/ ‘to milk’ and Sog: (BS). /ðwš-/ ‘to peck/nibble’ can be derived from the Proto-Iranian root /*daušš/ ‘to suck/suckle/milk’.

In this case, the Proto-Iranian stop /d/ in Pashto has been developed to cluster /lw/. On the other hand, in the case of Sogdian the Proto-Iranian stop /d/ changed into fricative-liquid cluster /ðw/. However, Pashto and Sogdian bear resemblance in the simplification of Proto-Iranian cluster /xš/ into fricative /š/.

20. Pašt. /droy/ ‘lie’ and Sog: (BS). /ðrymh/, (CS). /žym-/, ‘lie/falsehood’ may be compared with the Proto-Iranian root /*drau-/ ‘to lie/deceive’.

In this example, there is a particularly difficult-to-read derivation in Sogdian. Whereas Buddhist Sogdian has the expected dental fricative /ð/ for the Proto-Iranian stop /d/ but Christian Sogdian seems to be more innovative in that it has simplified the Proto-Iranian cluster /dr/ by deleting the /r/. As a result of this deletion, there have been also a retraction of the dental fricative /ð/ in anticipation of the velar fricative /ɣ/, thus leading to the former’s palatalization into /ž/. On the other hand, Pashto has a word-initial dental stop /d/, which may owe to its retention due to the environment of a cluster in which it is found. But it is possible for it to have been a later loanword which led to the restoration of the stop.

21. Pašt. /lustal//lawan/, (Waz). /lwastal//lwandal/ ‘to throw’ and Sog: (BS). /ðβ’n/, (BS). /ðβ’ny/, (CS). /db’n-/ ‘flame’ are cognates which are match-able with Proto-Iranian root /*dʰanH/ ‘to fume/ fly up/throw’.

Pashto alveolar lateral /l/ again is appeared for the Proto-Iranian stop /d/, while in Sogdian the Proto-Iranian /d/ changed into fricative /ð/. However, again Christian Sogdian shows conservatism in case of Proto-Iranian initial /d/. The Interesting development is the development of Sogdian /β/ into Pashto approximant /w/.

22. Pašt. /wryn/ ‘open, happy/sincere’ and Sog: (BS). /pryn/, (CS). /’fryn/, (MS). /fryn/, (MS). /βryn/ ‘to praise’ can be derived from Proto-Iranian root */*fraiH/* ‘to rejoice/to atone/[med.] please’.

In this case, there is found a diverging development of Proto-Iranian fricative /f/ in Sogdian. Within Sogdian, Buddhist scripts shows the strengthened of /f/ into stop /p/, while Christian Script and Manichean scripts show restoration of /f/, as well as, Manichean script describes the development of /f/ into /β/. In Pashto shows conversion of /f/ into /w/. Two possible conditions can be mentioned for the weakening of /f/ into approximant /w/: either it has been developed in sequence of /f/>/p/>/b/>/w/ or the /w/ might have been obtained through this /f/>/β/>/w/. Another explanation for this change of /f/ into /w/ can be that at first stage /f/ has been lenited into voiced fricative /v/, and later /v/ into /w/ in Pashto.

23. Pašt. /pušt-(ēd)əl/ ‘to ask’ and Sog: (SS). /p’rs-/, (SS). /ps-/, (BS). /’prs-/, (CS). /ps-/, (MS). /ps-/ ‘to ask’ are compared with Proto-Iranian root */*fras/pras/* ‘to ask’.

The Pashto stem for Proto-Iranian /fras/ is /pušt/. In the case of Proto-Iranian fricative /f/, there has been its development into /p/ both in Pashto and Sogdian. All scripts of Sogdian, except Buddhist, tell us about the deletion of glide /r/ after /f/. Furthermore, Proto-Iranian final dental alveolar /s/ has been developed to post-alveolar /š/ forming cluster with /t/ in Pashto.

24. Pašt. /gaṇedəl/ ‘to talk/humming/sing softly/murmuring’ and Sog: (CS). /ž’y/, (MS). /j’y/ ‘to speak/talk’ may be compared with Proto-Iranian root */*gaH/* ‘to sing/call’.

This example shows a divergence between Pashto and Sogdian. The Proto-Iranian velar stops /g/ has been developed into fricative /ž/ and affricate /j/, respectively in Christian and Manichean Sogdian, while Pashto retains it. The glide /y/ has been resulted from the laryngeal /H/ in Sogdian, while in Pashto, Proto-Iranian /H/ has been developed into nasal retroflex /ŋ/.

25. Pašt. /ɣwax-təl/ ‘wanting’ and Sog: (SS). /ɣw-/, (BS). /ɣw-/ ‘to be wanting/at fault’, (CS). /ɣw-/ ‘to be necessary’ can be compared with Proto-Iranian root */*gaHu/* ‘to need/be faulty/wanting; to want/desire’.

In this example, the Proto-Iranian word-initial /g/ has been lenited to /ɣ/. But Sogdian /ɣ/ is a fricative, while Pashto /ɣ/ has acquired approximant like properties. Also, the Proto-Iranian laryngeal /H/ has been changed into fricative /x/. Both languages are appeared with initial cluster, in which the liquid /w/ proceeds initial segment, because of the dropping of /H/ Sogdian shows development of /au/ into liquid /w/.

26. Pašt. /bɣarž/ ‘return/coming back’ and Sog: (BS). /zy’rš-/ ‘to arise/happen’ may be derived from Proto-Iranian root /*garš/ ‘to wind/turn’.

In this case, Proto-Iranian /g/ has been changed into fricative /ɣ/ and approximant /ɣ/ respectively in Sogdian and Pashto. This Pashto word appears to be a derivation with some sort of prefix /b/, while Sogdian with /z/.

27. Pašt. /āɣustəl//āɣund-/ ‘to dress’, /aɣund-//aɣust-/ ‘to put on’ and Sog: (BS). /‘ɣwnt/, (MS). /ɣwnd//ɣwst/ ‘to cover/dress’ may be compared with Proto-Iranian root /*gaud/ ‘to cover’.

This example also describes the development of Proto-Iranian /g/ into fricative /ɣ/ and approximant /ɣ/, in Sogdian and Pashto respectively. The word-final /d/ has been developed or retained into /t/ or /d/ forming cluster, in both languages. the retention of /d/ possesses environment of preceding /n/, while changing into /t/ also show environment of preceding alveolar fricative /s/. In addition, there is Proto-Iranian diphthong /au/ that has been changed into liquid /w/ and /u/ in Sogdian and Pashto, respectively.

28. Pašt. /ɣwaž/ ‘ear’ and Sog: (SS). /ptywš/, (BS). /pty’wš/, (CS). /ptywš/, (MS). /ptywš/ ‘to hear’ may be compared with Proto-Iranian root /*gauš/ ‘to hear/listen to’.

This example also describes the development of Proto-Iranian /g/ into /ɣ/ and approximant /ɣ/, in Sogdian and Pashto. But /ɣ/ of Pashto is not like Sogdian fricative /ɣ/, it possesses qualities like approximant sounds. Proto-Iranian final /š/ has been restored in Sogdian, and weakened into voiced /ž/ in Pashto. In addition, Proto-Iranian /au/ and /u/ have been converted into liquid /w/ in both languages.

29. Pašt. /yar-éǰ/ ‘to roar/thunder’ and Sog: (SS). /ʕr’n-/ (BS). /ʕr’ns/ ‘to get angry’, (CS). /ʕryn/ ‘to roar’ can be derived from the Proto-Iranian root /*gram/ ‘to thunder/roar; to anger’.

This example also shows the development of Proto-Iranian velar stop /g/ into fricative /ɣ/ in Sogdian. But, as the analysis concerns with comparable Pashto, we find that Pashto approximant /ɣ/ has not been developed directly from the Proto-Iranian word /graθH/. At the first stage, Proto-Iranian /g/ developed into fricative /ɣ/ (as we have evidences from Sogdian) and then it further weakened to the approximant /ɣ/. Because the Sogdian root /ʕr/ has been modified into Pashto /yar/. The Proto-Iranian initial cluster /gr/ has been developed into /ʕr/ in Sogdian. In addition to Pashto, the combination of /ʕr/ has been lost and no evidence traces this type of development. The addition of front vowel /a/ between two consonants describes anaptyxis phonological process in Pashto.

30. Pašt. /yar-əl/ ‘to twist/spin’ and Sog: (BS). /ʕr’nš/ ‘knot/bond/joining’ can be compared with Proto-Iranian word /*graθH/ ‘to tie (a knot)’.

In Sogdian, the Proto-Iranian /g/ has been lenited to fricative /ɣ/, as well as Proto-Iranian cluster initial cluster /gr/ has been developed into /ʕr/. But in Pashto approximant /ɣ/ has been developed from the Proto-Iranian word-initial /g/. In this case, Sogdian has retained Proto-Iranian trill /r/, whereas Pashto has turned up /r/ into retroflex /ɾ/. The innovation of retroflex sounds in Pashto is not the characteristics of Iranian languages, but rather an influence of Indic languages.

31. Pašt. /nāst/ ‘seated/sitting’ and Sog: (BS). /nyδ/, (CS). /nyd/, (MS). /nyδ/ ‘to sit down’ can be cognate with Proto-Iranian root /*nad/ ‘to sit/be seated’.

In this case, both Pashto and Sogdian have preserved the word-initial Proto-Iranian nasal stop /n/. Whereas Sogdian has lenited the root final /d/ into the dental fricative /δ/, it appears that the same segment is dropped in Pashto.

32. Pašt. /šmērəl/ ‘to count’ and Sog: (SS). /ptšmr-/ ‘to count’, (CS). /pcmr-/ ‘to reckon/consider’ can be compared with the Proto-Iranian root /*hmar/ ‘to remember/recall/to count’. Both Sogdian and Pashto show palatal fricative /š/ for the Proto-Iranian /h/. This seems to have been

obtained through a series of processes /h/ > /x/ > /š/ which was obtained in the environment of another stop. The similarity, to determine the relationship between the two languages, is striking.

33. Pašt. /xwala/ ‘sweat’ and Sog: (BS). /xwys/ ‘to sweat’ can be compared with the Proto-Iranian root /*h₂uid/ ‘to sweat’.

In this case again both Pashto and Sogdian have converted the Proto-Iranian /h/ into /x/ and the following /u/ into a glide /w/. What is more interesting is the final /d/ turns up regularly as a /l/ in Pashto but the expected /δ/ of Sogdian merges into /s/.

34. Pašt. /ūdə/ ‘sleeping’, ‘asleep’ and Sod: (CS). /špn-/ ‘to rest’, (+ *a_a-) (BS). /wβs-/ ‘to sleep/fall asleep’ can be compared with the Proto-Iranian root /*h₂uap(f)/ ‘to sleep’.

In this example, both Pashto and Sogdian show different forms. The expected /xw/ in Pashto appears as a long vowel /ū/ while Sogdian has a highly divergent variety of forms. In Christian Sogdian we see a change of /h/ > /x/ > /š/ due to the retention of the stop /p/, also with a loss of /w/. In Buddhist Sogdian we see a loss of /x/ but a retention of /w/ and either a change of the stop /p/ > /b/ > /β/ or a merger of /f/ into /β/. Also note that Waziri Pashto has /wewd/ ‘sleeping’, in which it seems the final /d/ is a suffix for either the present or the past stem and which appears rather closer to the Proto-Iranian form.

35. Pašt. /xwaɾəl/ ‘to eat’ and Sog: (SS). /xwr-/ ‘to eat/consume’ can be compared with the Proto-Iranian root /*h₂uar/ ‘to consume/eat’.

This example also provides the conversion of Proto-Iranian initial /h/ into fricative /x/ in both languages. Another feature that has been shared by both languages is the developing of Proto-Iranian semi-vowels /u/ into liquid /w/. In Pashto Proto-Iranian final trill /r/ has been developed into retroflex /ɾ/, while Sogdian has restored it.

36. Pašt. /oɾəl/ ‘to grind’ and Sog: (BS). /‘rδ/ ‘millstone’ /‘rδ’rn’k/ ‘mill’ may be matched with Proto-Iranian root /*HarH/ ‘to grind (grain)’. In Pashto, Proto-Iranian laryngeal /H/ has been changed into high vowel /u/, which is further merged into /o/, whereas, the final Proto-Iranian cluster /rH/ is modified into retroflex /ɾ/. In Pashto, at first stage the laryngeal /H/ may have dropped, and at second stage the trill /r/ would be

developed into retroflex. Although, in Sogdian both initial and final /H/ is dropped, While, the final trill is preserved by Sogdian. The fricative /ð/, in Sogdian example, is a suffix.

37. Pašt. /zγōr-/ , ‘to guard/protect’ and Sog: (BS). /γ’r/ ‘to watch/guard’ is compared with Proto- Iranian root /*Hgar/ ‘to be awake’.

This case shows divergence, as well similarity between Sogdian and Pashto. The divergence is that Proto- Iranian /H/ changed into fricative /z/ in Pashto, while Sogdian has dropped it. In Pashto, the developing of laryngeal /H/ into fricative /z/ seems to have been got through a series of processes /H/ > /x/ > /š/ > /ž/. The sharing feature of both comparable languages is the developing of stop /g/ into /γ/. In Pashto, /γ/ has been ascribed the characteristics of approximant, it is not like a fricative /y/ as we see in Sogdian.

38. Pašt. /muž-//mušəl/ ‘to rub’ and Sog: (CS). /pcmrws-/ ‘to feel/touch’ can be derived from Proto- Iranian root /*Hmars/ ‘to wipe/rub; touch’.

This example provides evidence of similarity between Sogdian and Pashto. Proto-Iranian laryngeal /H/ has been lost in both Sogdian and Pashto, while both have preserved the nasal /m/ sound of Proto-Iranian. Furthermore, the final cluster of Proto-Iranian language /rs/ has been retained by Sogdian, while in Pashto it has been converted into fricative /ž/ or /š/. In Sogdian the word has survived in derivation as /pcmrws/.

39. Pašt. /rīnjəl/ ‘to have liquid stool’ and Sog: (BS). /ryz/ ‘to flow’ is compared with Proto-Iranian root /*Hraič/ ‘to pour/flow’.

Again, this case shows the dropping of Proto-Iranian /H/ and preservation of Proto-Iranian trill /r/ in both languages. Although in case of the final voiceless affricate /č/, Pashto shows its weakening into voiced affricate /j/. The condition for this devoicing to voicing is the insertion of nasal sound /n/ in Pashto. The Sogdian cognate describes the conversion of affricate /č/ to fricative /z/.

40. Pašt. /rəma//rima/ ‘mucus/dysentry’ and Sog: (CS). /rym/ ‘dirt/impurity’ may be compared with Proto-Iranian root /*HraiH/ ‘to defecate’.

This example also provides evidence of the dropping of Proto-Iranian initial /H/ and retaining of trill /r/ by both languages. Furthermore, both languages show derivation with suffix /-m/.

41. Pašt. /wrost//wrasta/ ‘rotten/decayed’ and Sog: (BS). /rwδ-/ ‘to grow’ can be derived from Proto-Iranian root /*Hraud/ ‘to grow (bigger)’.

This example also provides evidence for the dropping of Proto-Iranian /H/ in both languages. However, there is Proto-Iranian final /d/ that have been changed into fricative /δ/ in Sogdian, while in Pashto the stem must have been /wra-/wro-/ that provides evidence about the loosing of /d/. The /st/ cluster, in Pashto word, is actually the past tense suffix. In Pashto, /d/ must have developed into /l/ and was then dropped. Further, Proto-Iranian trill /r/ has been preserved, and /au/ was developed into /w/ in both comparable languages. In addition, we find an interesting metathesis process in Pashto example, such as the alternation of /rw/ into /wr/. The Pashto word with different semantic meaning shows semantic shift.

42. Pašt. /yaš-dale/ ‘boiled’ and Sog: (BS). /βy’yš’ntk/, ‘boiling’ may be matched with Prot-Iranian root /*īah/ ‘to boil/bubble’.

This example deals with Proto-Iranian initial front-vowel /i/. It has been developed into liquid /j/ in both languages. This changing of /i/ into /j/ in both languages shows the same relation between Pashto and Sogdian. In Sogdian, the Proto-Iranian /iah/ has been survived in derivation with prefix /βy-/ and suffix /-ntk/. In addition, the final laryngeal /h/ of Proto-Iranian language has been converted into fricative /š/ in both languages, but it has been obtained through different stages, such as at first stage from /h/ to /x/ and second stage /x/ to /š/.

43. Pašt. /žan-/-žəl/ ‘to chop/mince’, wažni ‘to kill’ and Sog: (MS). /jn-/ ‘to strike’ (BS). /’wzy’n/ ‘killing/slaughter’ may be compared with Proto-Iranian root /*ǰan/ ‘to kill/slay/strike’.

In Sogdian, Manichean scripts shows conservatism according to which the Proto-Iranian /ǰ/ has been restored, while Buddhist Sogdian has changed initial /ǰ/ into fricative /z/. The condition for Buddhist Sogdian is affix, attached to the root. Regarding Pashto, initial affricate /ǰ/ has been developed into palatal fricative /ž/. Furthermore, both languages show the retention of Proto-Iranian final /n/, but few dialects of Pashto describe the

development of /n/ into alveolar lateral /l/. The condition for changing of /n/ into /l/ may have been the following schwa /ə/.

44. Pašt. /žōwul/, /žōyəl//žōy-/ ‘to chew’ and Sog: (BS). /zyβ/, (MS). /jβ/ ‘to bite’ can be derived from Proto-Iranian root /*jīauH/ ‘to chew’.

In this example, Proto-Iranian /j/ has been turned up into Pashto palatal fricative /ž/. Whereas, in Sogdian, the Buddhist scripts show the development of /j/ into alveolar fricative /ž/, and Manichean scripts describes the restoration of old segment /j/.

45. Pašt. (Waz.) /cəvda/ ‘nook under overhanging rocks/cave’ and Sog: (BS). /nk’np-/ ‘to bend/subdue’ may be derived from Proto-Iranian root /*kamp/ ‘to bend’.

This example shows developing of Proto-Iranian velar stop /k/. In Sogdian, it has been preserved in derivative form /nk’np-/, while in Pashto, /k/ has been palatalized into palatal-affricate /c/. Furthermore, the final Proto-Iranian /p/ has been retained in Sogdian, while Pashto describes /p/ development into fricative /v/. In Pashto, it seems to have been obtained through a changing of /p/ into /f/, then further into /v/.

46. Pašt. /kan-//kandəl/, (Waz.) /wu-kīnd/ ‘digging’ and Sog: (MS). /kn-/ ‘to dig’ is a comparable form of Proto-Iranian root /*kanH/ ‘to dig’.

In this case, again the Proto-Iranian word-initial velar stop /k/ has been retained by both languages as a velar stop /k/. In Pashto, Waziri dialects root /kind/ is followed by prefix /wu/. Moreover, in the retention of Proto-Iranian word final nasal /n/, both languages share resemblance.

47. Pašt. /skaštəl//skaŋ-/ ‘to cut out/clip out’ and Sog: (BS). /’skr’nt/ ‘to cut up’ may be compared with Proto-Iranian root /*kart/ ‘to cut’.

Here again Pashto and Sogdian share resemblance. Both languages have preserved Proto-Iranian stop /k/ which is followed by the fricative /s/. the Proto-Iranian word /kart/ has survived in a derivation way, respectively /skr/ and /skaštəl//skaŋ/. Pashto shows dropping of Proto-Iranian /r/, whereas Sogdian describes its retention.

48. Pašt. /katəl/, ‘looking’ and Sog: (CS). /’qsy/ ‘overseer’ can be matched with Proto-Iranian root /*kas/ ‘to look/appear’.

In this case Sogdian shows diverging development of Proto-Iranian /k/ into uvular /q/, through uvularization process. But in Pashto cognates,

there is a restoration of /k/. Furthermore, in case of the Proto-Iranian final fricative, we find that Sogdian has retained it, while Pashto has changed /k/ into /t/.

49. Pašt. /kedal/ ‘to be born’ and Sog: (MS). /kwrt/ ‘children’ may be derived from Proto-Iranian root/*k(a)ur/ ‘to be born/related’.

This example also shows the retention of Proto-Iranian velar stop /k/ by both languages. The Proto-Iranian /(a)u/ has been changed into liquid /w/ and vowel /e/, and Proto-Iranian final /r/ into cluster /rt/ and /d/ in Sogdian and Pashto respectively. In Old-Pashto (hypothetical form of Pashto) /r/ must have been developed either into cluster /rt/ that later would have dropped /r/ and changed /t/ into /d/ may be because of the preceding front vowel /e/.

50. Pašt. /kasa/, ‘see’ and Sog: (CS). /tkwš/, (MS). /tkwš/ ‘to look/observe’ may be compared with Proto-Iranian word /*kauš/ ‘to look/see’.

Pashto and Sogdian show the retention of Proto-Iranian velar stop /k/. In Pashto the root word for Proto-Iranian /kauš/ is /kasa/, while in Sogdian it has been survived in a derivation /tkwš/. This derivative Sogdian form /tkwš/ clearly shows the retention of velar /k/. Also, Proto-Iranian word final fricative /š/ has been restored by Sogdian, whereas, in Pashto it has been changed into dental alveolar fricative /s/. Proto-Iranian /au/ has been changed into /w/ in Sogdian. While in Pashto it has been passed through mono-phthongization into /a/.

51. Pašt. /ɣwaxtal/ ‘to search/demand/to wish’ and Sog: (MS). /xwj-/ ‘to wish/demand’ may be derived from Proto-Iranian root /*kauz/ ‘to search/seek’.

In this example, both languages have developed Proto-Iranian diphthong /au/ into /w/ and /k/ into /x/, but in Pashto /x/ has been further voiced into /ɣ/ through passing under Lenition process.

52. Pašt. /manəl/ ‘accept/to believe’ and Sog: (SS). /myn/, ‘to think’ are compared with Proto-Iranian root /*man/ ‘to think/consider’.

Pashto root for Proto-Iranian /man/ is /man/. Here, Pashto root shows complete archaism. In the case of Proto-Iranian nasal /m/, and

word-final nasal stop /n/, Sogdian and Pashto share similarities by retaining it.

53. Pašt. /mər/, (Waz.) /mri-/ ‘to die/dying’ and Sog: (BS). /myr-, (CS). /myr-/ ‘to die’ can be derived from Proto-Iranian root /*mar/ ‘to die’.

Here Pashto and Sogdian share same characteristics. Because, both languages deal with the retention of Proto-Iranian nasal /m/. In case of Proto-Iranian final trill /r/, Sogdian and Waziri dialect show archaism, by restoring trill /r/. While the standard dialect of Pashto shows developments of /r/ into retroflex /r̥/. Here we find that Waziri dialect is more conservative than other dialect. As, it has been categorized that standard dialect of Pashto is Yusufzai dialect, so a condition can be estimated for the development of Proto-Iranian trill into Pashto dialect retroflex, from the geographic area of Yusufzai dialect.

54. Pašt. /māt/ ‘broken’ and Sog: (MS). /mas/ ‘to plough’ may be matched with Proto-Iranian root /*maz/ ‘to break’.

This example also shows retention of Proto-Iranian nasal /m/ by Sogdian and Pashto. However, in Sogdian, Proto-Iranian word-final fricative /z/ turned into devoiced fricative /s/. The changing of voice into voiceless sound describes phonological process “fortition”. While Pashto indicates development of Proto-Iranian alveolar voice fricative /z/ into stop /t/ which is called fortition.

55. Pašt. (Waz.) /naw/ ‘moisten’ and Sog: (BS). /nβt̥k/, /nβtk/, (MS). /nβtyy/, (SS). /*nβtc/ ‘moist’ may be compared with Proto-Iranian root /*nab/ ‘to make wet/moisten’. This case is about the Proto-Iranian word-initial nasal stop /n/. Sogdian root for Proto-Iranian /nab/ is /nβt/, which tells us about the retention of nasal stop /n/. In Pashto, there is Waziri dialect comparable form /naw/, it is clearly seen that Pashto has also restored this stop /n/. In this example, there is Proto-Iranian word-final stop /b/. Within Sogdian, it has been developed into fricative /β/, while in Pashto it has been further weakened into approximant /w/.

56. Pašt. /naɾəl//nāɾ/ ‘to screech/to bray’ and Sog: (BS). /nrδ/ ‘to lament’ may be derived from Proto-Iranian root /*nard/ ‘to lament/moan’.

Proto-Iranian nasal stop /n/ has been retained by both languages. However, in Sogdian the Proto-Iranian final cluster /rd/ has been lenited into /rδ/, while, in Pashto the development of this cluster is completely different. In Pashto, it is noticed that this cluster /rd/ has been simplified into retroflex /ɾ/. This retroflex would have been obtained through process /rd/ > /r/ > /ɾ/.

57. Pašt. /nat-//natəl/ ‘to sack/spoil/ravish’ and Sog: (MS). /nyš/ ‘to perish/be destroyed’ can also be compared with Proto-Iranian /*nas/ ‘to disappear/to perish’.

Here, again it is found that initial Proto-Iranian nasal stop /n/ has been restored by Pashto and Sogdian. Furthermore, in Pashto word-final Proto-Iranian alveolar fricative /s/ has been changed into plosive stop /t/, but this time the fricative is voiceless, and this process is known as fortition. In Sogdian, however, the change has hence been in the place but not in manner i.e. alveolar fricative /s/ has been developed into palatal fricative /š/.

58. Pašt. /pox//paxa/ ‘ripe/cooked’, /paxlay/ ‘cooking’ and Sog: (CS). /pc-/ ‘to cook/boil’ can be compared with Proto-Iranian root /*pač/ ‘to cook’.

In this example, The Proto-Iranian plosive stop /p/ has been innovated in Pashto and Sogdian as a same sound /p/. Moreover, in Sogdian there is development of Proto-Iranian word-final palatal affricate /č/ into alveolar affricate /c/, while in Pashto it seems to have undergone direct lenition so that it developed into the velar fricative /x/.

59. Pašt. /prewate/ ‘to fall down’ and Sog: (BS). /nypδ-/ ‘to lie down’ are possible forms of Proto-Iranian root /*pad/ ‘to fall/be stuck in’.

Sogdian word for Proto-Iranian root /pad/ has been survived in derivation /nypδ/, which is retention of Proto-Iranian stop /p/. Pashto has also restored the same Proto-Iranian sound /p/ with ascribing of cluster /pr/. Also, there is word-final Proto-Iranian stop /d/. In Pashto, it seems to have strengthened directly to the voiceless stop /t/, while Sogdian shows lenition of stop into fricative /δ/.

60. Pašt. /pāṇa/ ‘feather/wing’ and Sog: (BS). /prn’y’n/ ‘flying/leaf/wing’ may be a comparable form of Proto-Iranian root /*parn/ ‘to fly off/take wing’.

This case also provides evidence of the retention of Proto-Iranian stop /p/ in Sogdian and Pashto. However, there is Proto-Iranian final word-final cluster /rn/, which has been restored in Sogdian, while in Pashto it has been developed into single retroflex nasal sound /ŋ/. This changing of cluster into nasal retroflex is because of the following front vowel /a/. We have other example of Pashto such as /naṛ/ (to defeat), in which Proto-Iranian cluster /rd/ has been changed into retroflex /r/ not nasal retroflex /ŋ/, because in case of /naṛ/ the Proto-Iranian cluster /rd/ is not following the front vowel /a/.

61. Pašt. /puda/ ‘rot’ and Sog: (MS). /pwst/ ‘to rot’ can be compared with Proto-Iranian root /*pauH/ ‘to stink/smell/rot’.

Again, Proto-Iranian /p/ has been restored by Pashto and Sogdian. Moreover, Proto-Iranian laryngeal /H/ has been modified into cluster /st/ in Sogdian, whereas Pashto shows development of laryngeal /H/ into plosive stop /d/. In Sogdian it is also shown that Proto-Iranian diphthong has been changed into glide /w/.

62. Pašt. /ražēdəl/ ‘to cast off/shed/to fall (as leaves)’ Sog: (BS). /rxm’k/, (MS). /rxmy/ ‘remains’ and can be compared with Proto-Iranian word /*raič/ ‘to leave/let/abandon’.

In both languages, Proto-Iranian word-initial trill /r/ has been preserved. In addition, it is found that final palatal affricate of Proto-Iranian language /č/ has been changed into palatal fricative /ž/, describing fricativization in Pashto, while within Sogdian changing of /č/ into velar fricative /x/ shows fricativization as well valorization.

63. Pašt. /raž-/ /ražed-/ ‘to fall (leaves)’ and Sog: (BS). /ryz/ ‘to drop’ are compared with Proto-Iranian root /*raiz/ ‘to fall (out)/drop’.

In this example, Pashto and Sogdian share a lot of resemblance. In both languages, Proto-Iranian word- initial trill /r/ has been preserved. We find that Sogdian has retained in Proto-Iranian final alveolar /z/, while Pashto shows palatalization, in which /z/ has been developed into palatal fricative /ž/.

64. Pašt. /brēšnə/ ‘brightness, brilliancy’ and Sog: (SS). /rwc/ ‘day’ may be comparable to Proto- Iranian root /*rauč/ ‘to shine/radiate’.

Proto-Iranian root /rauč/ has been modified into Pashto /brēšnə/, which clearly shows preservation of Proto-Iranian trill sound /r/. While Sogdian root /rwc/ also describes restoration of trill /r/. Furthermore, this example shows development of Proto-Iranian word-final palatal affricate into alveolar affricate /c/ and palatal fricative /š/, respectively in Sogdian and Pashto.

65. Pašt. /ruŋ/ ‘bright’ and Sog: (BS). /rywšn-/ , (MS). /rwxšn-/ ‘light/bright’ can be derived from Proto-Iranian root /*rauxšn/ ‘to shine’.

Again, there is Proto-Iranian trill segment /r/, which has been preserved in both languages. Moreover, when we deal with Proto-Iranian cluster /xšn/, the /x/ has been deleted and developed into /šn/ in Sogdian, whereas in Pashto it has been changed into nasal retroflex /ŋ/.

66. Pašt. /šlédəl/ ‘to break’ and Sog: (BS). /syδ-/ ‘to destroy’ can be compared with Proto-Iranian root /*said/ ‘to break/split/destroy’.

The example is about the Proto-Iranian word-initial alveolar fricative /s/. Sogdian has preserved it, whereas Pashto has developed it into palatal fricative /š/, showing palatalization. In Pashto final Proto-Iranian stop /d/ has been retained probably either because of the preceding long vowel /ē/ or initial cluster /šl/, while in Sogdian it has been lenited to fricative /δ/.

67. Pašt. /šawəl/ ‘to tell/to instruct’ and Sog; (BS). /sywn-/ ‘to utter/recite’ may be derived from Proto-Iranian root /*sanh/ ‘to declare/explain’.

In this case, it is seen that Proto-Iranian fricative /s/ has retained in Sogdian, while it has been further turned up into palate-alveolar /š/ in Pashto. The final Proto-Iranian /nh/ cluster has been modified into cluster /wn/ in Sogdian, while Pashto has dropped the /n/ of /nh/ cluster and just shows /w/ for this cluster. In Pashto it must have been also developed into /wn/ in earlier time but later /n/ might have been dropped.

68. Pašt. /sōr//sara/ ‘cold/winter’ and Sog: (BS). /srt//srty/ ‘cold’ may be compared with Proto-Iranian root /*sarH/ ‘to cool/become cold’.

This is another example, which show the retention of Proto-Iranian /s/ and dropping of /H/ in both languages. Proto-Iranian trill /r/ has been preserved in Sogdian, while Pashto shows its retroflexion.

69. Pašt. /sw-//swaj//swaži/ ‘to burn’ and Sog: (BS). /swc/ ‘to burn/kindle’ can be compared with Proto-Iranian root /*sauč/ ‘to burn/emit flames’.

In this case, we see that Proto-Iranian /s/ has been retained in both languages as well as that Proto-Iranian /au/ has been developed into /w/ in both languages. The difference between two languages shown by this example is the development of Proto-Iranian final palatal affricate /č/ into fricative /ž/ and palatal affricate /c/, which is palatalization process, in Pashto and Sogdian, respectively.

4. Conclusions

By using the multidimensional analysis, we have been able to arrive at very significant conclusions about the history of Sogdian and Pashto as Iranian languages as well as their relationship with each other. This investigation reveals that there are striking parallels between the historical development of the phonology of Pashto and the Sogdian language. Just like Sogdian, Pashto has not retained Proto-Iranian stops in the word-initial position but, in fact, has non-stop sounds. Sogdian shows fricatives in this position but Pashto has approximants and a lateral sound. This shows that the historical parent of Pashto must have had fricatives like Sogdian but these were weakened further; in other words, the form of Pashto spoken in the middle Iranian times must have had fricatives like Sogdian. Over time the Sogdian language died out while Pashto survived and during this period, the phonology of Pashto developed further, leading to the state which we see today.

However, this is not the only common development. It has also been noticed that how both Sogdian and Pashto retained the sonorant sounds of their Proto-Iranian ancestor. These retentions have almost one to one correspondence. Apart from this we also see the palatalization of the stridents, i.e., alveolar fricatives. In both these languages, the Proto-Iranian alveolar fricatives turned into post-alveolar or palato-alveolar fricatives. All of these developments suggest that the parents of both Pashto and Sogdian were two very closely related sister languages.

Nevertheless, it is also a very important reflex of a Proto-Iranian sound, which helps us to distinguish their parents so that the parent of Pashto was not exactly same as Sogdian but was somewhat different from it or maybe the two were more likely dialects with a common parent,

which researcher may be able to identify with what the scholars term as Proto-East Iranian. This divergence is the reflex of the Proto-Iranian palatal affricates. Whereas it is found that in the Sogdian language these turned into post-alveolar fricatives, in Pashto denti-alveolar fricatives are seen in their place. Hence, the most important phonological feature that distinguishes the historical parent of Pashto from that of the Sogdian language is the treatment of the palatal affricates. Whereas in Proto-Pashto they were only fronted, in Proto-Sogdian they were not only fronted but also de-affricated or lenited. This study also provides evidence for other such processes in which the divergent developments between Pashto and Sogdian can be seen.

All of this evidence serves to show that historically Pashto or the parent of Pashto was spoken side by side with Sogdian resulted such common innovations and archaism. Given the common developments between Pashto and Sogdian and their divergence from Proto-Iranian, it cannot be only affirmed that Pashto is an Iranian language like Sogdian and belongs to the Eastern branch of the Iranian family, but also we can conclude that definitely the historical parent of Pashto was spoken side by side with Sogdian somewhere in Central Asia. Hence, the parent of Pashto language migrated into its present-day territory from Central Asia. This migration also explains how word-initial stops were restored in the Pashto language after migration in a newer homeland, by borrowing words from its sister Iranian languages which had preserved the word-initial stops of the Proto-Iranian language. These languages appear to have been displaced by Pashto, though one important survivor is the Ormuri language.

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