



A partial tree of Central Iranian: A new look at Iranian subphyla

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A partial tree of Central Iranian

A new look at Iranian subphyla

Abstract: Relations within the Iranian branch of Indo-European have traditionally been modelled by a tree that is essentially composed of binary splits into sub- and sub-subbranches. The first part of this article will argue against this tree and show that it is rendered outdated by new data that have come to light from contemporary and ancient languages. The tree was also methodologically problematic from the outset, both for reasons of the isoglosses on which it is based, and for not taking into account distinctions such as shared innovations vs. shared archaisms.

The second part of the paper will present an attempt at an alternative tree for Iranian by proposing a subbranch which I will call “Central Iranian”. Such a branch seems to be suggested by a set of non-trivial morphological innovations shared by Bactrian, Parthian and some neighbouring languages. The reconstruction of the nominal system of Central Iranian which will then be proposed aims to show the result one arrives at when trying to reconstruct a subbranch as strictly bottom-up as possible, i.e. using only the data from the languages under study, and avoiding to profit from Old Iranian data and from our knowledge about the protolanguages.

Keywords: Iranian languages, family tree, reconstruction; Bactrian, Parthian, Persian, Sogdian, Sorani

1 The Iranian family tree and its problems

1.1 Introduction

This article will apply the idea of “reconstructing from below” discussed at the symposium “Indo-European from within: Explaining IE subphyla by themselves” in Göttingen in March 2016.¹ While we think we reconstruct Proto-Indo-European bottom-up (**Fig. 1a**), our idea of the intermediary languages is in fact shaped by what we think we know about Proto-Indo-European, i.e. follows a top-down approach (**Fig. 1b**). What protolanguage would we arrive at if we set out exclusively from the attested languages (**Fig. 1c**)? For the Iranian (Ir.) branch, the results would probably not differ too much from our usual reconstruction, first because the protolanguage is closer in time to Proto-Indo-European (PIE) than, say, Proto-Celtic or Proto-Slavic (cf. the difference in distance in **Fig. 2**), and, second, because reconstructed PIE heavily relies on Indo-Iranian at least insofar as the morphology is concerned. Conversely, it is within Iranian that we find a typical example of a top-down reconstruction: the family tree of Iranian (**Fig. 3**) is in fact composed of dichotomies which were established to distinguish Old Persian from Avestan, Middle Persian (MP) from Parthian (Pth.)² and so on.

¹ See the article by Götz Keydana and Paul Widmer in this collection. This article is based on the presentation given at the workshop in Göttingen 2016 and on several papers given at earlier occasions (Cracow 2011, Rome 2014 and Naples 2015) as well as in seminars in Cambridge, Hamburg, Paris and Zürich. I am grateful to all colleagues for feedback on these occasions, and particularly to Nicholas Sims-Williams and Thomas Jügel for important discussions.

For the purposes of the present article, *y* and *w* are used for Proto-Iranian instead of *j* and *u*, and Zazaki data are in (to some extent historicising) phonological notation rather than in contemporary orthography, thus *a*, *ā*, *i*, *ī* instead of <e>, <a>, <i>, <i>, respectively, and *ǰ*, *č*, *ž* for <c>, <ç>, <j>.

² See **Section 1.4** below.

The first part of this article will thus point out the various types of problems with the traditional tree model (**Section 1.2-1.4**), which seem to highlight rather well the types of problems encountered in family tree discussions generally. I will then proceed to suggest a family tree different from the traditional one and attempt to reconstruct the intermediary protolanguage (Proto-Central Iranian) that this tree postulates (**Section 3.**).

Fig. 1: Ways of reconstructing

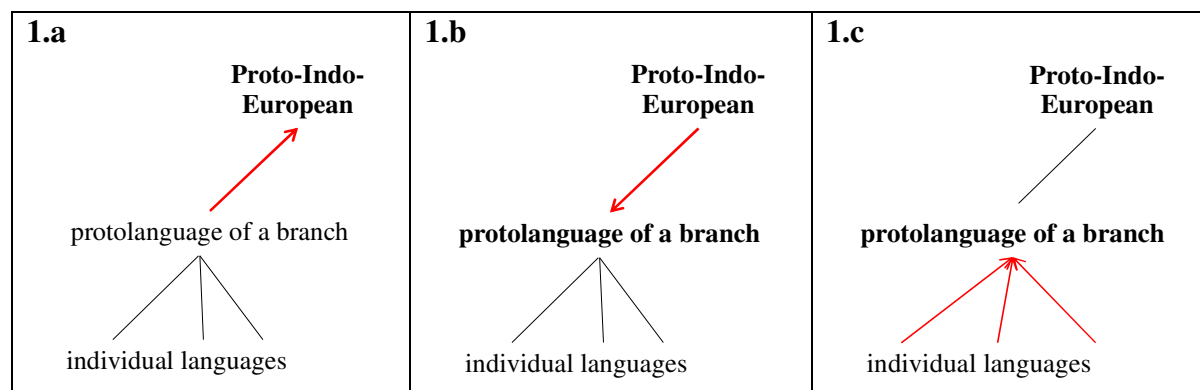
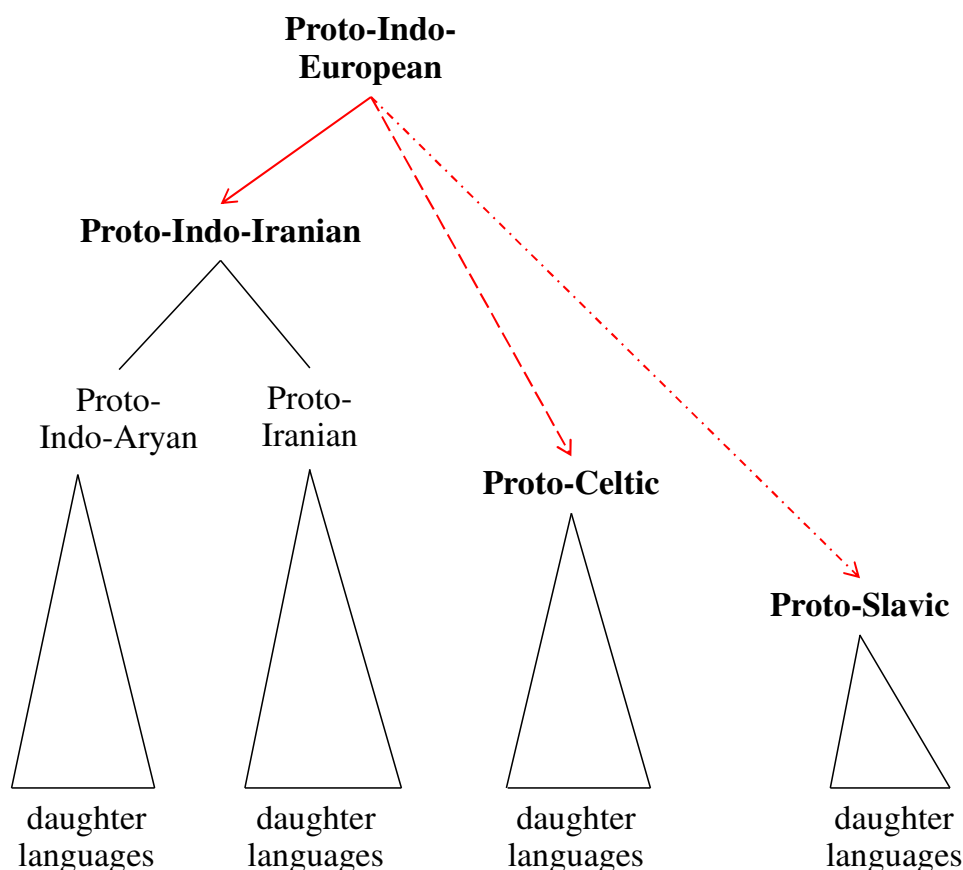


Fig. 2: Discrepancy in closeness of intermediary protolanguages to PIE (schematic)

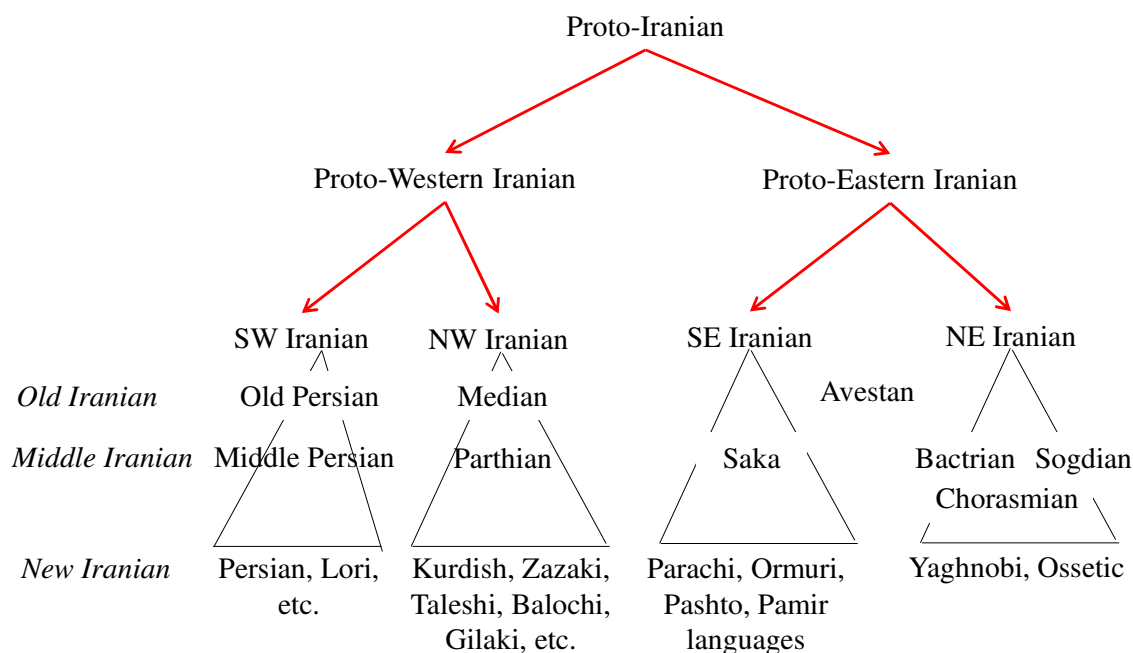


1.2 Disappearing genetic units: Eastern Iranian

A tree as in **Fig. 3** is a model of the relationships of the languages concerned, and has a number of additional implications at the same time. For instance, it posits the existence of Proto-Iranian as ancestor of all Ir. languages, and the existence of the intermediary knots

Proto-Western and Proto-Eastern Iranian, whose grammars one should in principle be able to reconstruct. These assumptions have been shaken considerably in recent decades by the emergence of new data.

Fig. 3: Family tree of Iranian as traditionally assumed



First, Eastern Iranian (Elr.) has been shown not to be a genetic entity: “it does not seem possible to regard the Eastern Iranian group as a whole—even disregarding Parachi andOrmuri—as a genetic grouping. Such a conception would imply the existence of an ancestral “proto-Eastern Iranian” (...); but if one reconstructs “proto-Eastern Iranian” in such a way as to account for all the features of the group, it proves to be identical to the “common Iranian” reconstructible as the ancestor of the whole Iranian family” (SIMS-WILLIAMS 1996a:651b). SIMS-WILLIAMS goes on to say that the common features of Eastern Iranian are more likely to be due to language contact.³

Data leading to this conclusion are shown in (4): among the isoglosses that have traditionally been used to define Eastern Iranian, there is not even one which would embrace all of Eastern Iranian. Nor is there a feature that would be exclusive to it, i.e. distinguish Eastern Iranian as a group from Western Iranian (WIr.). There are thus no changes which would be attributable to the line (and the time span) which in the family tree links Proto-Eastern-Iranian to Proto-Iranian, and the knot Proto-Eastern Iranian needs to be deleted from the tree in **Fig. 3**.

Something similar holds true on the lower level. Proposals which have been made for the subgrouping of Eastern Iranian differ so dramatically that they become unlikely from the outset, and consequently have not been relied on.⁴ (**Fig. 3** shows the subbranches as advocated in the series *Osnovy iranskogo jazykoznanija*; other scholars have suggested a South Elr. subbranch consisting of Parachi and Ormuri only, the other Elr. languages being North Eastern Iranian.)

³ Essentially this thought is already stated in SIMS-WILLIAMS (1989:165).

⁴ See WENDTLAND (2009:172) for a survey of this topic.

Fig. 4: Eastern Iranian Non-Isoglosses (following SIMS-WILLIAMS 1996a:650f.)

Isogloss	Example	Counterexample
not inclusive (i.e. here: does not include the whole group)		
Old Ir. <i>č</i> [tʃ], <i>ǰ</i> [dʒ] > <i>ts</i> [ts], <i>dz</i> [dz]	Chorasmian <i>tsafār</i> , Pashto <i>tsalōr</i> ‘four’	not in Sogdian, Yaghnobi, Yidgha-Munji, Parachi
Old Ir. <i>b, d, g</i> > <i>β, δ, γ</i> also in word-initial position	Sogdian, Bactrian, Chor. <i>βar-</i> ‘carry’	not in Parachi,Ormuri; maybe not in Saka and others ⁵
Old Ir. <i>ft, xt</i> > <i>βd, γd</i>	Saka <i>hauda</i> , Pashto <i>ōwə</i> , Chor. <i>aβδ</i> < <i>*haβδa</i> ‘seven’	not in Parachi,Ormuri; Sogdian only <i>βt, γt</i>
lexical isoglosses	<i>*maiθa-</i> ‘day’ (WIr. <i>*raučah-</i>)	Bactrian ρωσο /rōts/
not exclusive (i.e. also in Western Iranian)		
Old Ir. <i>θ</i> preserved or > <i>t</i>	Sogdian, Chorasmian <i>mēθ</i> ‘day’	<i>θ</i> > <i>t</i> also in Balochi: <i>mētag</i> ‘village’ < <i>*maiθana-</i> ‘place of living’
“numerous vocabulary items attested exclusively in Eastern Iranian” (SIMS-WILLIAMS ibid.)	<i>*abi-ar-</i> ‘obtain’ <i>*gari-</i> ‘mountain’ (WIr. <i>*kaufa-</i>) <i>*kuta/ī-</i> ‘dog’ (WIr. <i>*s(p)aka-</i>)	Caspian <i>īr</i> - ⁶ Persian, Pth. <i>Gar°</i> (names) Zazaki <i>kutik</i> etc.

1.3 Disappearing genetic units: Western Iranian

So far as Western Iranian is concerned, the discussion has focussed on the subdivision into a Northern and Southern subbranch (see **Fig. 3**). This dichotomy of Western Iranian is essentially based on an article by TEDESCO (see Section 1.4), who lists differences between Middle Persian and Parthian. The dichotomy thus obtained has proven untenable for the subgrouping of Western Iranian because the isoglosses do not yield a two-way distinction once one adds data from New Ir. languages. As discussed by PAUL 1998a and KORN 2003, among others, for the phonological isoglosses established by TEDESCO, most New WIr. languages do not arrange themselves on one side of the division, sharing instead some features with Parthian, but others with (Middle) Persian. The lack of a two-way distinction suggests that there is no ancestor knot for North-Western and South-Western Iranian, and these knots need to be deleted from the family tree in **Fig. 3** as well.

Although the family tree model has been challenged almost as soon as it was established, and TEDESCO (1921:250-255) showed that contemporary languages do not necessarily fit the model, it has not been replaced so far, and the traditional divisions keep being repeated in handbooks and manuals of Indo-European and Iranian.⁷

1.4 Problematic isoglosses: Western Iranian

Perhaps the fact that the family tree has not been replaced by anything else is connected to the problem that the isoglosses on which the traditional classification of Iranian rests have not been challenged. This problem will be highlighted by WIr. data here, but a parallel point could

⁵ Cf. SIMS-WILLIAMS (1989:168). For further discussion, see KÜMMEL (2007:289-294).

⁶ Nicholas Sims-Williams, p.c. (information from Satoko Yoshie).

⁷ Thus for instance in SCHMITT 2000 and in the language classification by the *Ethnologue* (<http://www.ethnologue.com>).

be made about Eastern Iranian.

The division of the WIr. branch into a so-called South-Western (SWIr.) and North-Western (NWIr.) branch to a large extent has its origin in the analysis of Middle Ir. texts of the Manichean religion found around 1900 in Chinese Turkestan. Trying to determine the language of the individual Manichean fragments, all written in the same script, research by Friedrich Carl ANDREAS, Paul TEDESCO, Wolfgang LENTZ and others revealed three Ir. “dialects”, one of which (Sogdian, as it then turned out) was more different from the other two. To attribute the various fragments to the latter varieties, now known as Middle Persian and Parthian, TEDESCO 1921 set up a list of “dialectal” differences between the “Southern” and “Northern dialect”.

It is essentially this list of differences that has been used for subgrouping WIr. languages, a top-down approach again (cf. **Section 1.1**). While the use of TEDESCO’s isoglosses for such purposes was initiated by TEDESCO himself, I argue that it is a misunderstanding to use the isoglosses in this way, and that it has rather major consequences in terms of method.

1.4.1 Overestimated features

The first consequence of using TEDESCO’s list for the purposes of subgrouping Iranian is that it has been taken for granted that any feature in which Middle Persian and Parthian diverge is good as an isogloss for a subgrouping of Western Iranian as a whole. This amounts to systematically overestimating a certain set of features. It might also be the reason that criteria such as markedness and innovation vs. archaism as well as the chronological perspective have largely been overlooked.⁸

A case in point is the supposed change of word-initial *y-* to SWIr. *ǰ-*, which is shown e.g. by MP *ǰuwān*, *ǰāwēd*, *ǰud*, *ǰigar* vs. Pth. *yuwān* ‘young’, *yāvēd* ‘eternal’, *yud* ‘separate’, Gorani *yahar* ‘liver’. Now, Armenian *ǰatuk* ‘sorcerer’ vs. NP *ǰādū*, Sanskrit *yātú-* ‘sorcery’ (HÜBSCHMANN 1897:232) shows that the Persian change of *y-* > *ǰ-* is older than the voicing of the intervocalic stops, i.e. took place already in a period preceding any Middle Persian texts. If this were a relevant isogloss, the sharing of this feature must mean that all Ir. languages showing it (even including Talyshi and Zazaki, which otherwise agree with Parthian in many features) were in contact with Persian at the time when the change operated. In my view, this is rather unlikely, and much more probably, these languages will have undergone the change independently.⁹ Indeed, the change *y-* > *ǰ-* is very common cross-linguistically; it is found in Hindi, Italian, low German etc. (cf. Italian *giovane*, Low German [dʒuŋ] ‘boy’ vs. English *young*, Sanskrit *yuvan-*) and many others.

This also highlights another problem brought about by TEDESCO’s list. Using it as it stands, one tends to overlook the crucial difference between typologically **unmarked** and **marked** features, i.e. those that are phonetically straightforward and frequently found cross-linguistically (as is the case for *y-* > *ǰ-*), meaning that they are likely to arise independently, and those that are less common processes. In the latter case, languages that show them are more likely to share them as a result of either shared inheritance or language contact. Not all differences between Middle Persian and Parthian are thus useful as isoglosses for Western Iranian.

⁸ See KORN 2003 for more discussion of these points.

⁹ See KORN (2003:56f.) and GIPPERT (2009:84-87) for further discussion. It also seems that some varieties that show *y-* actually reverted from previous *ǰ-*.

Another important distinction to be made is that between **shared archaism** and **shared innovation**. Concerning common innovations, it is of course impossible in principle to exclude that the same development may have happened independently in several languages: but the probability of this solution depends on whether or not the given change is typologically unmarked or marked.

Common archaisms can be illustrated by the Old Iranian consonant cluster *rd*, preserved as such in a number of WIr. languages, but changed to *l* in Persian (e.g. *del* ‘heart’). For languages sharing this change (such as Kurmanji Kurdish), one could consider a closer relationship to Persian (or language contact at the time the change occurred) while languages preserving *rd* (e.g. Parthian and Balochi *zird*) do not imply anything: no contact of languages is necessary to motivate the preservation of a feature in a given language.

This also means that one isogloss has two fundamentally different implications for the two sides of the dividing line: while the languages showing [+change] might, if the feature is judged sufficiently marked to be an isogloss, form a group, varieties showing [-change] do not form a group, as the non-change is a shared archaism, as is the case for *rd* just mentioned, so that the fact that (e.g.) Balochi agrees with Parthian in preserving *rd* does not have a group-forming effect on these languages. An isogloss, then, is only **half an isogloss**, as it were, with implications only for one side of the line (in our case: for the languages that show *rd* > *l*). This further reduces the applicability of TEDESCO’s isoglosses.

1.4.2 Overlooked features

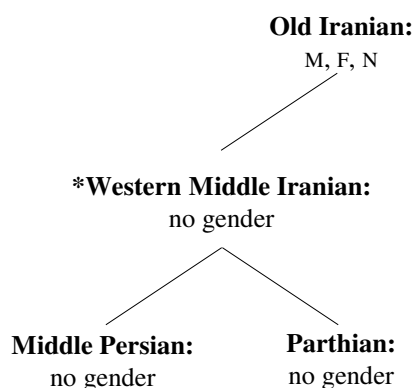
Another aspect of the use of TEDESCO’s isoglosses has had even more negative consequences. Listing the differences of Middle Persian and Parthian, he of course does not note any features in which these languages do not differ. This has the effect that characteristics for which Middle Persian and Parthian agree have not entered the discussion of WIr. isoglosses at all. This is a major methodological problem, as this approach eliminates *a priori* characteristics which might in fact be quite relevant for the question of subgroups within Western Iranian; it amounts to systematically disregarding potentially relevant data.

It is obvious that Middle Persian and Parthian do not show the whole picture of what must have been present in Middle Iranian. One such point is the **gender distinction** seen in some WIr. languages. Gender is absent from both Middle Persian and Parthian (the only WIr. languages attested in Middle Ir. times), which might be taken to suggest that the inherited gender system was lost in Western Iranian already in Middle Ir. times (**Fig. 5a**). However, as shown by MACKENZIE 1954, the two-way gender distinction (masculine vs. feminine) seen in Kurmanji (and other contemporary languages) cannot be an innovation, but must rest on Old Iranian models since numerous lexical items show the same gender they had in Old Iranian, which would not be subject to explanation from within Kurmanji. The (unattested) predecessor of Kurmanji can thus not be derived from attested Middle Iranian, but must have been a Middle Ir. language preserving at least two of the Old Ir. genders. Proto-Western Iranian must thus have had gender distinction, and both Middle Persian and Parthian lost it (**Fig. 5b**). This example shows that looking at Middle Persian and Parthian alone yields wrong assumptions about the ancestor language. It also underlines the importance of contemporary languages for linguistic reconstruction, and in fact suggests a bottom-up approach.

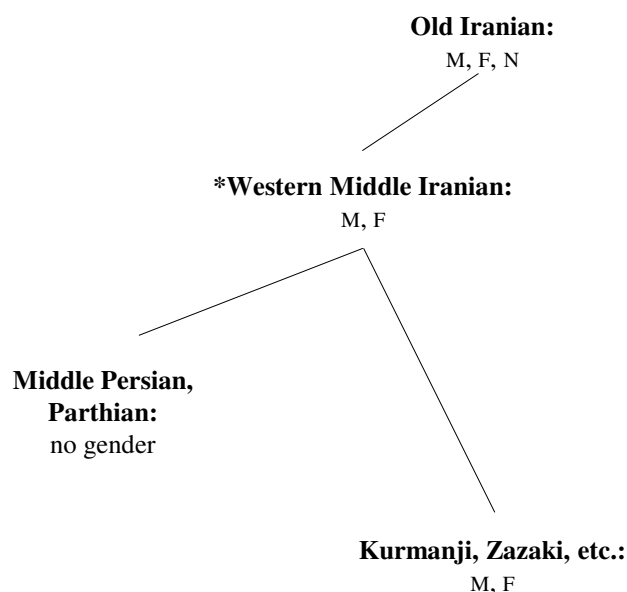
While both the retention of gender in some Ir. languages (as a shared archaism) and the loss of gender in others (as probably independent developments) will hardly be considered an isogloss, some other features could quite well be worth to be taken into account.

Fig. 5: Models for the development of gender in Western Iranian

5.a reconstruction as suggested
by attested Middle Iranian



5.b reconstruction as suggested
by contemporary languages



I argue that this is the case for Proto-Ir. **vocalic** **r* (as e.g. in **brta*- ‘carried’, **mrta*- ‘died’, **krta*- ‘done’, **trsa*- ‘fear’, **grwya*- ‘seize’, **mrya*- ‘die’, etc.), which yields *ur* in labial context in both Middle Persian and Parthian (*burd*, *murd*) and *ir* in neutral and palatal contexts (*kird*, *tirs*-; MP *gīr*-, *mīr*-).¹⁰ One could be tempted to assume that this development is common to all of Western Iranian and to ascribe it to Proto-Western Iranian (**Fig. 6a**).

However, this interpretation is proved wrong by data from other WIr. languages. Balochi agrees with Middle Persian and Parthian insofar as **r* likewise yields *ur* in labial context (*burt*, *murt*) and *ir* in palatal context (*gir*-, *mir*-), but differs from both in that there is *ur* in neutral context, as shown by *kurt*, *turs*, etc.¹¹ Gilaki might agree with this result (*kud* ‘done’).¹² A still different (and as yet not quite investigated) development is shown by Zazaki and perhaps by Talyshi, and also needs to be assumed for a WIr. language that provided some loanwords in Armenian.¹³ These languages appear to show *ar* (e.g. Zazaki *kard*, *tars*).¹⁴ The result in labial context is not quite clear; maybe loanwords or dialectal phenomena play a role. However, it is noteworthy that the result is *ar* in several words even here, e.g. *bard*, *mard*.¹⁵

There are thus at least three different outcomes of **r* in Western Iranian, and thus three groups of dialects to be distinguished by their result of **r* in neutral context. This difference, small though it may seem, appears to be an important isogloss: as soon as **r* has yielded *ir*, *ur* or *ar*, this sequence is indistinguishable from old sequences of vowel plus *r* (the outcome *ar* even

¹⁰ For the outcome of **r* in Persian, see RASTORGUEVA & MOLČANOVA (1981a:48), HÜBSCHMANN (1895:143-150); for Parthian, see RASTORGUEVA & MOLČANOVA (1981b:181). There is a difference in the result of **r...y* > MP *īr* vs. possibly *ir* (*girw*-, *mir*-) in Parthian (KORN & DURKIN-MEISTERERENST 2009:12).

¹¹ KORN (2005:143-149, 328).

¹² The Gilaki data are from KERIMOVA et al. 1980, Zazaki from MALMISANIJ 1992, Talyshi from MILLER 1953.

¹³ See BOLOGNESI (1960:25-27, 53f.), KORN (2013a:77f., 87; 2016:13f.) for *ar* in Armenian.

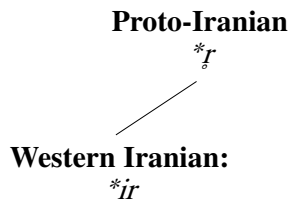
¹⁴ Additional Zazaki examples for *ar* (cf. fn. 1): *barz* ‘high’ < **bržant*-, *pars* ‘ask’ < **prsa*-, *varg* ‘wolf’ < **wřka*-, *girawt* ‘taken’ < **grfta*-; but also *pird* ‘bridge’ < **prθu*-, *pirr* ‘full’ < **prna*-, *birn* ‘cut’ < **brna*-. Examples for palatal context include *mir*- ‘die’ < **mrya*-, *gīr*- ‘take’ < **grbya*-, *zarri* ‘heart’ < **žrdaya*- (cf. also KORN 2013b:107f.).

¹⁵ PAUL (1998:305); other dialects of Zazaki have *mord*, which either shows secondary labialisation or assimilation to *mordam* ‘man’ (< **martiya*-).

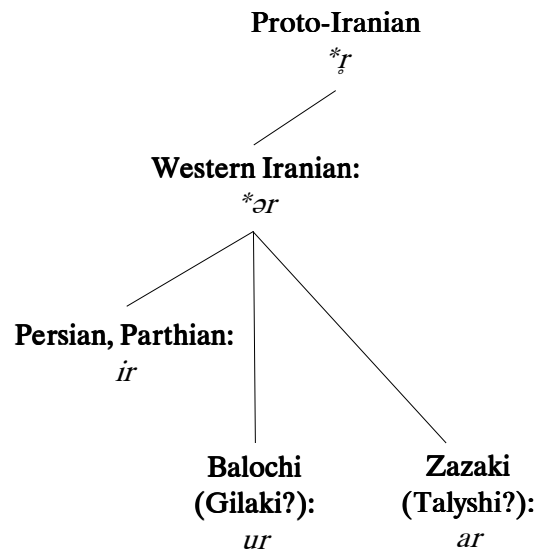
falls together with inherited full grades). The development is thus a “point of no return” in dividing Middle Persian plus Parthian from other WIr. languages (**Fig. 6b**). Yet, Middle Persian and Parthian agreeing in this feature by coincidence has had the effect that the feature has never been considered as a potential isogloss.

Fig. 6: Models for the development of Proto-Iranian **r* in neutral context

6.a reconstruction as suggested by attested Middle Iranian



6.b reconstruction as suggested by contemporary languages



1.4.3 Summary on Western Ir. isoglosses

The potential isogloss just suggested demonstrates that the set of features used for the subgrouping of Western Iranian has been problematic from the outset. While it is interesting of course to see which New Ir. language agree with which MP or Pth. feature, I think it is a misunderstanding to imply that the same features are the best and the only criteria by which Western Iranian should be grouped. It implies a heavy bias towards those features in which Persian and Parthian are different and ignores potentially relevant features just because Persian and Parthian happen to agree in a particular point.

The approach by PAUL 1998a, suggesting a “scale of Northwesternness” (i.e. degree of agreement with Parthian, or difference from Middle Persian) to replace the binary distinction, reproduces the bias that those, and only those, features are taken as relevant in which Persian and Parthian are different. Works such as MACKENZIE 1961a and WINDFUHR 1975 are also based on TEDESCO’s criteria (often adding one or the other feature to the list), even if they go beyond a dichotomy of Western Iranian.¹⁶ Essentially, however, the issue is not solved by adding some features to the existing list, but by revising it entirely.

2 The position of Bactrian within the Iranian languages

An opportunity to look at the matter from a different perspective is offered by an entire corpus of data that emerged in the last years, viz. the ca. 150 manuscripts (from the Sasanian era) that have come to light and have been edited by SIMS-WILLIAMS 2000-2012 (“BD”). The

¹⁶ LECOQ 1989 has a somewhat different set of isoglosses, but the phonological ones are essentially those from TEDESCO 1921.

knowledge of Bactrian has thus immensely increased over the last decades, and it has also led to a better understanding of the inscriptions (predating the Sasanian era), which are more archaic linguistically. The two bodies of texts will be referred to “**Bactrian manuscripts**” and “**Bactrian inscriptions**”, respectively, where necessary.

2.1 Vocalic **r* continued

Traditionally, Bactrian has been classified as Eastern Iranian, but it has also been noted that it is “closely related” to Parthian (SIMS-WILLIAMS 2004a:543). Following up on the argument above, it springs to mind that the Bactrian result of Proto-Ir. **r* is not any more researched than that of Zazaki, but, judging by words with rather clear etymology, the result looks like that of Middle Persian and Parthian (cf. **Section 1.4.2**).¹⁷ There is *op* in labial contexts (βορδο ‘carried’ < **br̥ta-*, μορδο ‘died’ < **mr̥ta-*, πορσ- ‘ask’ < **pr̥sa-*, πορδο ‘fitting, appropriate’ < **pr̥ta-*, βορζο (in names) ‘high’ < **br̥zant-*, χοζο ‘good’ < **xw̥r̥žu-*, inscriptional φροχορτ- ‘withdraw’ < **fra-xw̥r̥šta-*,¹⁸ πιδοροβ-, πιδορβ- ‘accept’ < **pati-gr̥bāya-*,¹⁹ πιδοροβδο ‘carried’ < **pati-gr̥fta-*)²⁰ and *ir* otherwise, i.e. in phonetically neutral context: κῑρ- / κῑρδο ‘do’ < **kr̥nu-* / **kr̥ta-*, υῑρζ- / υῑρτο ‘leave’ < **hr̥za-* / **hr̥šta-*, γῑρζ- / γῑρτο ‘lament’ < **gr̥za-* / **gr̥šta-*,²¹ γῑρλ- ‘call’ < **gr̥da-*,²² κῑρβαγο ‘plowing ox’ < **kr̥sāka-*, φρογῑρτιγο ‘share (?)’ < **fra-kr̥šta-ka-* (?), ρῑρτο (day name) < **r̥štāt*. The same result is seen in palatal context: μῑρ- ‘die’ < **mr̥ya-*, ιεῑρο, (ι)εῑρο ‘matter’ < **rya-* or **ira-* (?).²³

The result from Proto-Ir. **r* is by no means the only instance of a “branch-crossing isogloss” that Bactrian shares with Parthian and other WIr. languages. Other instances from the phonological domain include *hr* for Old Ir. (non-Persian) *θr*, shared with Parthian, Zazaki, etc. (while Sogdian, in other respects quite close to Bactrian, shows *š*).²⁴ This begs the question whether Western Iranian should also be abandoned as a genetic entity.

2.2 Morphological innovations

2.2.1 General points

As noted in **Section 1.4.1**, it is shared innovations rather than shared archaisms which are potentially relevant for the subgrouping of languages. Also, phonological isoglosses are often difficult to judge as to whether they are marked enough to count – many sound changes occur precisely because they are phonetically straightforward, which often means they are cross-

¹⁷ Examples and protoforms are from the glossary in SIMS-WILLIAMS BD II. In Bactrian orthography, word-final -o marks the end of the word, and υ is used for *h* (for which the Greek alphabet does not have a letter).

¹⁸ The past stem οοχορτο ‘quarrel’ has full grade (**wi-xwaršta-*) according to SIMS-WILLIAMS (BD II:248).

¹⁹ Thus SIMS-WILLIAMS (BD II:256). Bactrian agrees with Old Persian (against Middle Persian and Parthian) in this particular present stem.

²⁰ But note *ir* in labial context in μῑργο ‘hen’ < **mr̥ga-* ‘bird’, καμῑρδο (god’s name) < **kam̥r̥da-* (**καμῑρλο* could be the source for the name Kamalu (9th c.) and Khotanese *kamala-* ‘head’, and **καμῑρδιγο* the one for Tocharian B *kamartike*, A *kākmärtik*, cf. SIMS-WILLIAMS 1997:23).

²¹ The WIr. cognates appear to have full grade: Zoroastrian MP <glc->, Pth. <grzyšn> ‘lament’ (*garz(išn)*).

²² For potential cognates cf. CHEUNG (2007:106).

²³ The hapax πῑρο might be a further example if it means ‘old man’. SIMS-WILLIAMS (BD II:256) derives it from **parya-* (following GERSHEVITCH 1964:81f.), which could agree with Avestan *pao’riia-* etc. in going back to PIE **pr̥h̥3u̯jo-* (while MP *pīr* etc. appears to derive from a form without laryngeal, cf. KORN 2005:149). Note, however, that *pēr* (found in a Judeo-Persian poem from Bukhara) which GERSHEVITCH adduces to support his argument is not of probative value as the same text also shows *faqēr* (HORN 1901:27) with secondary *ē* vs. Arabic *faqīr*, and rhymes in the Shahnama prove the *ī* of NP *pīr* (HORN 1899:166).

²⁴ For this feature in Eastern Iranian, see WENDTLAND (2009:177f.). See also Gholami (2014:68-70) for further discussion on the position of Bactrian.

linguistically too common to be sure they did not occur independently. It has been suggested, then, that morphological innovations are a better way to check subgroupings of languages: “It is now generally agreed among linguists that the most certain sub-groups are constructed on the basis of unique shared morphological innovations” (CLACKSON 2007:5f.).

In what follows, I will thus review the morphological innovations which Bactrian shares with other Ir. languages. To avoid imposing my own views, the points mentioned below (though not the presentation) are items of a list of features of Bactrian in SIMS-WILLIAMS 2004b (with data from other languages added).

2.2.2 Data

2.2.2.1 One instance is the suppletive paradigm of the verb ‘see’, the elements of which are the same in Bactrian, Parthian, Zazaki and Persian, among others, combining the present stem (PRS) **waina-* (a denominative probably meaning ‘perceive’),²⁵ which has no inherited past stem, with the past stem (PST) **dīta-*, thus MP *wēn-* / *dīd*. Sogdian has the same PRS, but the PST *wēt* is clearly a secondary formation based on the PRS; and it seems possible (though of course speculative) that it has replaced an earlier PST **dīt*. Other Ir. languages show other combinations, though. For instance, Balochi associates PST *dīt* to PRS *gind-*.²⁶

2.2.2.2 Next, Bactrian shares the suffix *-ād*, which forms secondary past stems, with Sogdian, Parthian and several contemporary languages such as Zazaki and Semnani, while Persian and Balochi use a suffix deriving from **-ita-* (another alternative is *-ist*). The shared past stem suffix *-ād* is all the more remarkable as it links Bactrian both to “Western” and “Eastern” Ir. languages. The suffix *-ād* must have arisen as a result of a metanalysis of a small group of verbs whose past stem is regularly *-ād*, and then spread by analogy to other verbs.²⁷ The most frequent surely is ‘stand’ (quoting Pth. forms): PST *ēstād* (**stāta-* < **steh₂-to-*, with preverb), which at the same time is the 3SG ‘s/he stood’. Comparison with *ēst-ēd* ‘s/he stands’ (**st-ayati* stand.PRS-3SG) may have led to a reanalysis such as (7), yielding a past stem suffix *-ād*. This process is not quite trivial, and indeed neighbouring languages such as Persian follow other paths to recruit a secondary past stem suffix.²⁸

$$(7) \quad \begin{array}{ccc} \bar{e}st\bar{e}d & : & \bar{e}st\bar{a}d \\ \text{‘stands’} & : & \text{‘stood’} \\ \hline = wind\bar{e}d & : & X \\ \text{‘finds’} & : & \end{array} \Rightarrow wind-\bar{a}d \text{ ‘found’; PST suffix } -\bar{a}d$$

2.2.2.3 Another peculiar and synchronically irregular feature is a new optative ending, which is found in Bactrian (-ιῶητο) and Parthian (-ēndē), and might be the origin of the imperfect in Zazaki.²⁹ This form is clearly based on the ending of the 3PL indicative, to which the 3SG optative ending is affixed.³⁰ Maybe the process that brought about this form opposed forms such as (Bactrian forms) *αγαδο* ‘s/he has come’ and *αγαδ-ιῶδο* ‘they have come’ to the

²⁵ Cf. CHEUNG (2007:412f.) for the cognates.

²⁶ For further discussion, see Section 2.2.3 below.

²⁷ Cf. DURKIN-MEISTERERNST (2000:86f.) and BARTHOLOMAE (1920:12, 20) on the derivation of *-ād*, PAUL (2003:68-70) on the distribution of past stems in Western Iranian and KORN (2009a:198f.) on Persian *-īd*.

²⁸ *wind-ād*, which I choose as an example for the notional scenario here, replaces the inherited PST **wist*.

²⁹ Thus GIPPERT (2009:92-96); NB that the Zazaki imperfect does not inflect, while an apparently parallel formation in Gorani (past conditional) shows inflection (maybe secondarily). Both are based on the PST, thus corresponding to Parthian constructions such as *būd ahēndē(h)* ‘would have been’ (GIPPERT *ibid.*).

³⁰ That this is the case (rather than -ητο being e.g. the 3SG pronominal clitic, cf. Section 3.2.2) receives confirmation from the fact that the 3PL subjunctive is -ιῶαδο (besides -ιῶδο), i.e. the 3SG -αδο added to the 3PL ending (thus also the line of development sketched by JÜGEL 2015:160).

optative αγαδ-ηιο ‘may s/he come’, with a reanalysis of -ηιο as optative marker, thence αγαδ-ινδ-ηιο ‘may they come’ (8).

$$\begin{array}{lcl}
 \text{(8)} & \begin{array}{c} \text{αγαδο} \\ \text{‘s/he came’} \\ \hline \text{αγαδηιο} \\ \text{‘s/he might} \\ \text{come’} \end{array} & \begin{array}{c} : \\ \\ : \end{array} \begin{array}{c} \text{αγαδινδο} \\ \text{‘they came’} \\ \hline \text{X} \end{array} \Rightarrow \text{αγαδ-ινδ-ηιο ‘they might come’;} \\
 & & \text{optative suffix -ēi}
 \end{array}$$

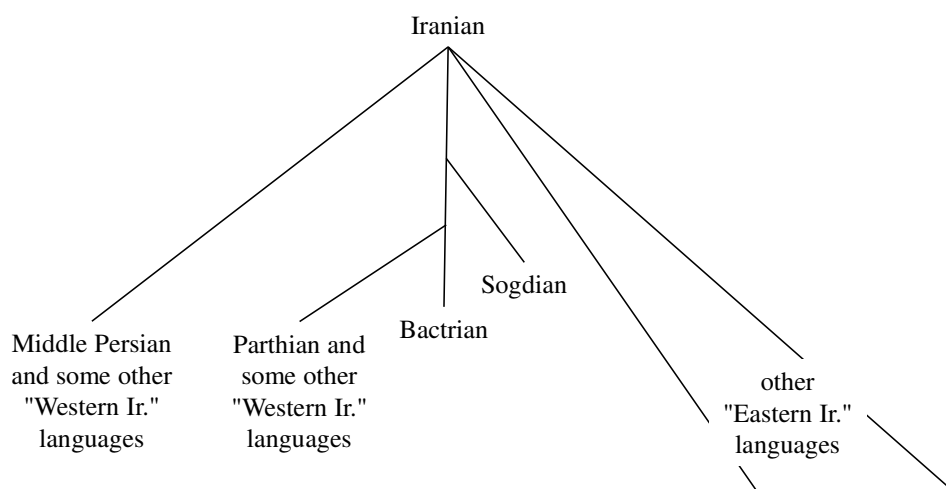
Even more remarkably, the modal marker is suffixed to the ending of the 3PL, thus to a finite verb form while otherwise modal markers are usually suffixed to stems, followed by the endings. The suffix -ινδηιο / *-ēndēh* is even generalised for other forms: for the 1PL in Bactrian and for the 2/3SG in Parthian, making it a somewhat general optative ending.

2.2.2.4 Furthermore, there is an imperfect in *-āz-* in Sogdian, which may be connected to Bactrian φροαγ-αζο ‘was proclaimed’ (Rabatak-inscription line 4), and to Pth. *āh-āz* ‘was’, an imperfect form of the copula. As pointed out by DURKIN-MEISTERERNST 2007, one might assume that Sogdian is the source for this formation, since the language has a full paradigm (endings being added to the suffix). However, he goes on to say that the Sogdian forms other than *āz* ‘was’ seem to be late and the paradigm an innovation parallel to some other innovations within the Sogdian verbal system. The etymology of the formation is not clear,³¹ but it seems to be a combination of a fossilised verb form with a particle, and a rather noteworthy formation as well.

2.2.3 Discussion

As noted by CLACKSON (cf. **Section 2.2.1**), “unique shared morphological innovations” should safely permit the reconstruction of a common ancestor, just as, for instance, Indo-Iranian (**Fig. 2**) is defined by the shared innovations of Iranian and Indian. If one takes this seriously, the group of shared innovations in **Section 2.2.2** (to which other shared features might be added, see **Section 2.1**) would seem to permit the reconstruction of a subbranch containing at least Parthian and Bactrian, and possibly Sogdian as the next relative (**Fig. 9**).

Fig. 9: Preliminary conclusion from shared innovations of Bactrian and Parthian



Clearly this is not the complete picture, since Bactrian also shares a number of features that have traditionally been held to define Eastern Iranian (cf. **Fig. 4**), such as the lenition of the

³¹ Cf. JÜGEL (2015:130f.) for a survey.

Old Ir. consonant clusters **xt* and *ft* (e.g. Bactrian $\lambda\omicron\gamma\delta\omicron$ vs. Avestan *duxtār*- ‘daughter’).³²

So far as morphology is concerned, there is a rather peculiar the 2PL pronoun $\tau\omicron\mu\alpha\chi\omicron$ which Bactrian shares with some Pamir languages (Yazghulami *təmoχ*, Ishkashmi *tīmīχ*):³³ $\tau\omicron\mu\alpha\chi\omicron$ looks as if it were a combination of the 2SG $\tau\omicron(o)$ and the 1PL pronoun ‘we’. It seems difficult to imagine at first sight that the same process would have happened independently in Bactrian and other languages. At the same time, one would hardly suggest a common ancestor for these languages, which otherwise are quite different from each other.³⁴

This merits another look: as suggested by MORGENSTIERNE (1929:348) for the Ormuri 2PL pronoun *tōs* / *tyūs*, the inherited 2PL “*(*yu*)*šmāxam* prob[ably]. resulted in **māx* = 1st Prs. Pl. [pronoun ‘we’]”. Such a change also occurred in Bactrian (SIMS-WILLIAMS fthc.), which motivated the rise of a new form “with added prefix for differentiation from the first person plural pronoun”.³⁵ The change *šm* > *m* is quite common, by the way, and has also taken place in Zazaki and Balochi (Persian *čašm* ‘eye’ vs. Z *çim*, B *čam(m)* and Kurmanji *çav* with further development *m* > *v*).³⁶ Other EIr. languages have likewise innovated the 2PL pronoun, also based on the 2SG, but with different formations, thus e.g. Pashto *tāsē* (vs. 2SG DIR *tə*, OBL *tā*) whose second element is not clear.³⁷ It thus seems likely that a change *šm* > *m* operated in a number of EIr. languages, either as a regular change of an earlier knot in the tree, or as an areal phenomenon, or independently.

In fact, a parallel process has taken place in Greek: regular changes of the vowels η and υ brought about the same form for the pronouns $\eta\mu\epsilon\iota\varsigma$ ‘we’ and $\upsilon\mu\epsilon\iota\varsigma$ ‘you.PL’ (/imis/), which motivated the substitution of the 2PL pronoun by a form $\sigma\epsilon\iota\varsigma$, $\epsilon\sigma\epsilon\iota\varsigma$ based on the 2SG one (NOM $\sigma\acute{\upsilon}$, ACC $\sigma\acute{\epsilon}$).³⁸

There are thus several Ir. languages which, following a phonetic change that produced two identical pronouns, have innovated one of these on the basis of the corresponding singular, while the details of the formation are different. This view is quite different from a mere statement to the effect of “the same formation of the 2PL pronoun in Bactrian and some Pamir languages”, underlining the importance of isogloss evaluation.

³² See WENDTLAND 2009 for more data on the position of Bactrian vs. the traditional isoglosses.

³³ The Pamir languages showing this pronoun are Shughni, Bartangi, Sarikoli, Yazghulami, Ishkashmi. WENDTLAND (2009: 180) adds: “Before the Bactrian form became known it [= this formation] was thought to be a peculiarity of some Pamir languages, and was described as one of several characteristics alien to Iranian and therefore attributed to substratum influence.” This view is still upheld by EDELMAN & DODYKHUOEVA (2009:782, 794).

³⁴ See also **Section 3.2.2** for more discussion of isoglosses in the pronominal system.

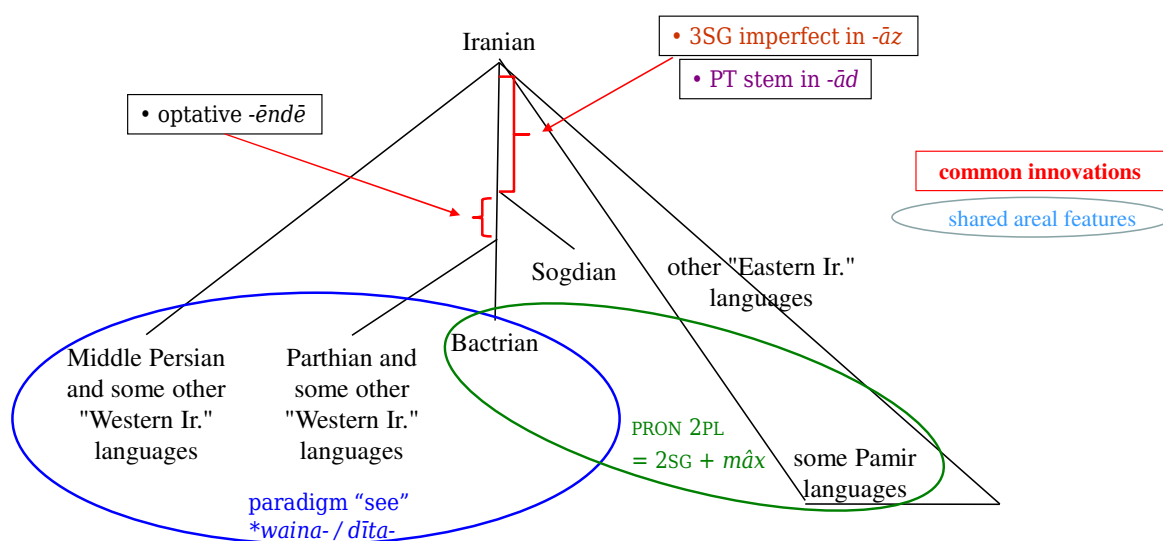
³⁵ This element might be either the “second person demonstrative (...) or 2 sg. pron. (...)” (SIMS-WILLIAMS BD II:271). For Ormuri, MORGENSTIERNE assumes influence from Lahnda *tus* rather than a language-internal development.

³⁶ Note that GEIGER (1890:147) considers Balochi *šumā* ‘you.PL’ as borrowed from Persian. However, his reason for doing so appears to be that he considers Eastern Bal. *šawā*, *šā* as the inherited form (ibid.). This seems unlikely, since it would presuppose that the (occasional) change **m* > Eastern Bal. *w* is earlier than the change *šm* > *m* common to all Bal. dialects, giving an implausible scenario. On the other hand, if *(V)*šmāh* gave **mā* as it apparently did in Bactrian etc., it might indeed have been replaced by *šumā*, showing the New Persian epenthetic vowel instead of a prothetic one as would be expected for Balochi (and as seen in MP, Pth. *Všmāh*, see **Section 3.2.1**).

³⁷ Cf. the suggestions by MORGENSTIERNE (2003:84).

³⁸ Cf. PALMER (1980:184): “owing to the convergence of η and υ , $\eta\mu\epsilon\iota\varsigma$ and $\upsilon\mu\epsilon\iota\varsigma$ were often confused (from A.D. i, in the papyri). This led to the creation of a new form $\sigma\epsilon\iota\varsigma/\epsilon\sigma\epsilon\iota\varsigma$ for the second person (A.D. vi) while $\eta\mu\epsilon\iota\varsigma$, $\eta\mu\acute{\alpha}\varsigma$, $\eta\mu\acute{\omega}\nu$ were replaced by $\epsilon\mu\epsilon\iota\varsigma$, $\epsilon\mu\acute{\alpha}\varsigma$, $\epsilon\mu\acute{\omega}\nu$.” Modern Greek has $\epsilon\mu\epsilon\iota\varsigma$ /emis/ vs. $\upsilon\mu\epsilon\iota\varsigma$ /imis/. I am grateful to Ron KIM for pointing out the Greek parallel to me.

Fig. 10: Preliminary conclusion from shared innovations of Bactrian and Parthian



The tree suggested in **Fig. 9** would also imply that the suppletive paradigm for ‘see’ is an areal phenomenon (**Fig. 10**) or an independent development. That this is actually possible might be shown by the Balochi forms. Here, a present stem *gind-* (< **wind-* ‘find’) is combined with a PT *dīt*, replacing the inherited PT **wist* (> †*gist*), which in Parthian was replaced by *windād* (11), and of which a trace might be present in the *-st* of the Balochi variants *dīst*, *dist*.³⁹ The noteworthy substitution of a suppletive paradigm for the inherited form shows that Old Ir. *dīta-* ‘watch, observe’⁴⁰ was widely adopted as PT for different present stem formations.

2.3 The position of Bactrian and a new family tree

It would be beyond the scope of the present article to discuss all topics that are relevant here, and I hope to continue the discussion in the future. For the moment being, the crucial points are that the traditional family tree of Iranian has been proven untenable, and the knots Proto-Western Iranian and Proto-Eastern Iranian inexistent. Conversely, Bactrian is linked to its Eastern and Western neighbours, particularly to Parthian, by a group of morphological innovations which seem by far not trivial enough to have occurred independently.

So there is sufficient motivation at hand to justify the attempt of a different family tree, and of an approach that combines it with areal features. Starting from the methodological postulate “that the most certain sub-groups are constructed on the basis of unique shared morphological innovations” (CLACKSON 2007:5f.), I will suggest such a sub-group in what follows. This sub-group, called “Central Iranian” (implying a position between traditionally assumed Western and Eastern Iranian),⁴¹ includes Bactrian and Parthian as its main members, as shown by the morphological innovations of the verbal system that they share (**Fig. 9**).

Assuming a Central Iranian subbranch of Iranian implies the hypothesis that there was a protolanguage from which its members are descended, and it also implies that it must be possible to reconstruct the grammar of this protolanguage. In what follows, I will thus try to

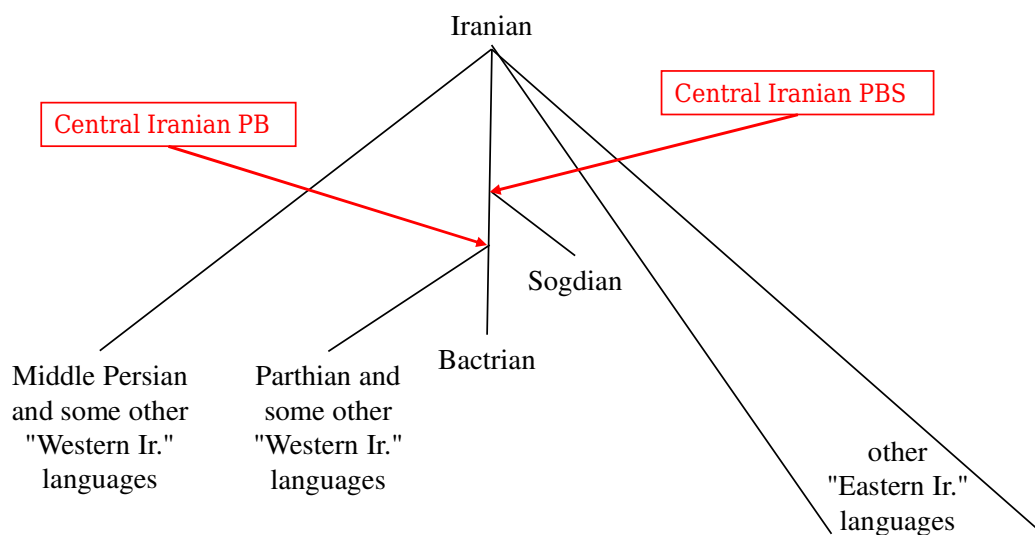
³⁹ This is the meaning in Avestan according to BARTHOLOMAE (1904:724f.).

⁴⁰ Cf. KORN (2005:79, 188).

⁴¹ Note that the term “Central Iranian” (vel sim.) has been used in other meanings, e.g. by KORN & JÜGEL 2010 and JÜGEL 2013, 2014.

reconstruct this protolanguage to see whether it gives a meaningful result, or whether perhaps we are faced with another instance of it being “identical to the “common Iranian” reconstructible as the ancestor of the whole Iranian family” which SIMS-WILLIAMS (1996a:651b) found for Eastern Iranian (see **Section 1.2**), and which would mean that the entity does not exist.

Fig. 11: The “Central Iranian” branch



It will emerge from the discussion to follow that Sogdian shares some features with “Central Iranian”, so that the ancestor knot of Parthian (and Bactrian will be called “Central Iranian PB” and the one including Sogdian “Central Iranian PBS” (**Fig. 11**).

Trying to avert the problems discussed in **Section 1.4.2**, and to compensate for the fragmentary data from Parthian (including the ambiguities of the script), I will add some data from other languages, chiefly from Zazaki, a New Ir. language comparatively close to Parthian, and sharing all morphological innovations mentioned in **Section 2.2.2**.⁴² Middle Persian, not belonging to the branch to be reconstructed, will be referred to for comparison, and because it might share features with “Central Iranian” within a *sprachbund* (cf. **Fig. 10**).

3 Central Iranian

The present attempt of reconstructing Central Iranian is a test case of **Fig. 1c**, i.e. I will try to reconstruct strictly “bottom-up”, so far as possible without making use of our knowledge of previous stages and etymologies (where necessary, data of this type will be given in the footnotes). Also, I will rely as far as possible on data and etymologies suggested by others in order to avoid imposing (too much of) my own views.

Having already mentioned some features of the verbal system of “Central Iranian” in **Section 2.2.2**, this section suggests a reconstruction of the nominal system.

⁴² GIPPERT (2009:103) concludes from his study of the position of Zazaki that it forms a group with Gorani and Semnani, which in turn has a particularly close relation to Parthian. However, Parthian differs from the group by showing some innovations not shared by the other languages.

3.1 Nouns

The most common paradigm for nouns (probably the only productive one) for Parthian and Bactrian is given in **Fig. 12**.⁴³ The Parthian system is the one also obtaining in Middle Persian.

Fig. 12: Noun inflection in Central Iranian (most common patterns)⁴⁴

	Early Bactrian		*Early Parthian / Middle Persian		cf. Zazaki	
	DIR	OBL	DIR	OBL	DIR	OBL
SG	-Ø <-o>	-l, -ε	-Ø	-ē	-Ø	-ī
PL	-ε	-αvo		-ān, -īn, -ūn	-ī	-ān

Clearly Bactrian with Parthian / Middle Persian alone would yield an incomplete paradigm as is shown already by the fact that neither Bactrian nor Parthian has **gender** whereas many contemporary languages do (cf. **Section 1.4.2**). Bactrian shows traces of gender agreement (the definite article *α* being combined with originally feminine nouns) and there are “isolated examples of f. adjectives in -σo and -vζo corresponding to m. forms in -γo and -γγo respectively” (SIMS-WILLIAMS BD II:41). With no relics of the neuter, a two-way gender distinction (M, F) as seen in Zazaki and other New Ir. languages thus needs to be reconstructed for Central Iranian (**Fig. 13a**).

Both Bactrian and Parthian / Middle Persian show a loss of **case** distinction within the attested texts. The OBL.SG is lost and the OBL.PL ending reinterpreted as PL suffix, giving a system SG -Ø, PL -ān. Zazaki and many other contemporary languages show that just as the loss of gender, the merger of the cases did not occur in related dialects. In the SG, Bactrian and Zazaki show a palatal vowel as ending which is lost in Middle Persian and Parthian (but various pieces of evidence show that these languages had such an ending at some point, too).⁴⁵

As for the form of the endings to reconstruct for the OBL.SG and the DIR.PL,⁴⁶ it seems to me that the vowel length of Zazaki and the vowel quality of Bactrian represent the *lectio difficilior*, as it were: *ē might have yielded Zazaki ī (as it did e.g. in New Persian), and Bactrian might show a shortening of word-final vowels (*-ē > -e) that would certainly not be unusual.

Fig. 13: *Proto-Central Iranian noun inflection

13a	reconstruction		13b	revised reconstruction			
	DIR	OBL		nouns		family terms	
				DIR	OBL	DIR	OBL
SG	-Ø	-ē		-u/o	-ē	-Ø, -ar	-ar
PL	-ē	-ān		-ē	-ān, -īn, -ūn	-ar	-ar-ān
• NB: gender M vs. F							

⁴³ In this first attempt of reconstructing elements of the grammar of Central Iranian, I will focus on the main paradigms, leaving aside some additional forms (such as remnants of various stem classes, which are for the present purposes treated as relic forms).

⁴⁴ Data: SIMS-WILLIAMS (BD II:40); DURKIN-MEISTERERNST (2014:201f.); PAUL (2009: 548). For the notation of Zazaki, see fn.1.

⁴⁵ Cf. the survey in JÜGEL (2015:168).

⁴⁶ NB that the exact phonetic value of the Greek letters in Bactrian use is far from clear.

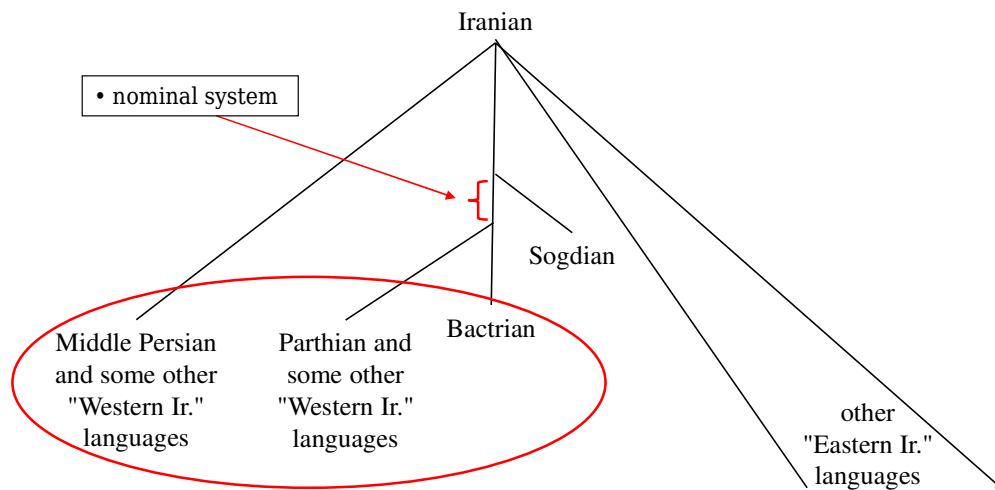
As is already shown by the several endings of the OBL.PL, matters are somewhat more complicated than suggested by **Fig. 13a**. The -o of the DIR.SG of Bactrian also needs to be accounted for: while it marks the word-end in the manuscripts,⁴⁷ it seems unlikely that it had no phonetic value whatsoever at the time when the script was adopted, and more likely that it marked a labial vowel at first (as undoubtedly is its usual value in non-word-final position).⁴⁸ Also pointing towards the presence of a word-final labial vowel are certain peculiarities of the Manichean orthography (-u preceding certain clitics), and a group of Ir. loanwords in Armenian unexpectedly being *u*- or *o*-stems although these noun classes are not productive in Armenian.⁴⁹ While the former phenomenon has been found for Middle Persian, the Armenian items just mentioned appear to come from an Ir. variety sharing with Zazaki the development of **r* > *ar* (cf. **Section 1.4.2**), and the result of *hr* from **θr* with Bactrian, Parthian, Zazaki etc. (**Section 2.1**). All this appears to favour the reconstruction of a DIR.SG ending -*u* or -*o* (**Fig. 13b**).

There is a prominent group of nouns patterning differently, viz. the family terms (**Fig. 14**), which have an OBL in -*ar*, and a combination of -*ar* with -*ān* in the OBL.PL. Some dialects of Zazaki show an OBL.SG in -*r* for family terms as well. All this suggests a paradigm of the form as in **Fig. 13b** for Central Iranian.

Fig. 14: Inflection of family terms in Central Iranian (βραδο ‘brother’, πορανο ‘sons’, φροζινδανο ‘offspring’, *pid* ‘father’, *wā* ‘sister’)⁵⁰

	Bactrian family terms		Middle Persian / *Parthian		cf. Zazaki	
	DIR	OBL	DIR	OBL	DIR	OBL
SG	βραδο	βραδαρο (?) ⁵¹	<i>pid</i> , <i>pidar</i>	<i>pidar</i>	<i>wā</i>	<i>wā-r(i)</i>
PL	βραδ(α)ρανο	πορανο, φροζινδανο, πο(υ)ρανανο, φροζινδανανο	<i>pidar</i>	<i>pidarān</i>	<i>wā-y</i>	<i>wā-y-ān</i>

Fig. 15: The position of Proto-Central Iranian noun inflection in the family tree



⁴⁷ Cf. SIMS-WILLIAMS (BD II:38).

⁴⁸ Cf. LAZARD et al. (1984:224-226).

⁴⁹ Cf. KORN 2013a for discussion of this issue.

⁵⁰ Data from SIMS-WILLIAMS (BD II:41, with more details); PAUL (2009:548). The MP / Pth. paradigm shows the functions observed for MP family terms in the Manichean texts by SIMS-WILLIAMS (1981:167-170). The paradigm given by DURKIN-MEISTERERNST (2014:202) for Early Parthian and Middle Persian has forms such as **pitaram*, thus a stage too early for the one meant here.

⁵¹ Only once (in the text F10 unless it is “a mere mistake”, SIMS-WILLIAMS BD II:41).

Looking beyond these languages, the Sogdian “heavy stems” share the SG paradigm of **Fig. 13a**, so Sogdian takes part to some extent in the development that brought about this system. However, the other Sogdian inflection class, viz. the so-called “light stems”, is a more elaborate paradigm (see **Section 3.3**). The system in **Fig. 12** as the only productive nominal paradigm thus seems to have become established during the time highlighted in **Fig. 15**. It is shared by Middle Persian.

3.2 Personal pronouns

3.2.1 Full pronouns

The forms of the personal pronouns (**Fig. 16**) are very similar in Parthian and Bactrian, while Middle Persian differs in having another form for the 1SG.

For the Pth. 2SG, the Manichean script shows <tw> throughout, but the possibility of a case distinction (i.e. DIR *tū* (?) vs. OBL *tō* (?)) has been suggested on the grounds of two different Aramaeograms being employed in the older texts.⁵² At any rate, there clearly are two different forms in Bactrian as well as in Zazaki (and in other contemporary languages), thus two forms need to be posited for Central Iranian.⁵³

Fig. 16: Inflection of personal pronouns in Central Iranian⁵³

	Bactrian		Parthian / Middle Persian		cf. Zazaki	
	DIR	OBL	DIR	OBL	DIR	OBL
1SG	αζο	μανο	Pth. <i>az</i> , MP <i>an</i>	<i>man</i>	<i>az</i>	<i>mi(n)</i>
2SG	το(ι), τοο, τογο, τοουο	ταο(ι), ταοο(ι)	<i>tū</i> (?) <tw>	<i>tō</i> (?) <tw>	<i>tī</i>	<i>to</i>
1PL	αμαχο	αμαχο, ιαμαχο	<i>amā(h)</i>		<i>mā</i>	
2PL		τωμαχο, τομαχο, ταμαχο	Pth. <i>išmāh</i> , MP <i>ašmāh</i>		<i>šimā</i>	

The final consonant of the 1PL shows the rather common difference between WIr. *h* and EIr. *x*, for which I decide to reconstruct Proto-Central Ir. *x* as the potential *lectio difficilior*.

The Bactrian 2PL pronoun is clearly an innovation replacing an earlier form (cf. **Section 2.2.3**), and it is not shared by the neighbouring languages. The difference between the MP and Pth. vowels “follows the rules for the prothetic vowel”⁵⁴ (and the same applies to Zazaki), so one could posit **(ə)šmāx* (**Fig. 17a**). Middle Persian does not share this paradigm so far as the 1SG pronoun is concerned.

It springs to mind that the personal pronouns of Sogdian are very similar to this system. The integration of Sogdian, or rather the reconstruction of the pronouns of the next higher knot, thus comes at low cost, so to speak, yielding an element of the grammar of “Central Iranian PBS” (Parthian, Bactrian and Sogdian, **Fig. 17b**) different from the lower knot “Central

⁵² SUNDERMANN (1989:131).

⁵³ Data from SIMS-WILLIAMS (BD II:41), GHOLAMI (2009:133); DURKIN-MEISTERERNST (2014:206-208); PAUL (2009:551).

⁵⁴ DURKIN-MEISTERERNST (2014:208).

Iranian PB” (Parthian and Bactrian only) (**Fig. 11**). The pronouns of Central Iranian PBS differ from those of PB chiefly by showing a word-final vowel, which is reminiscent of the difference between **Fig. 13a** and **13b** insofar as the DIR.SG is concerned.

Fig. 17: *Proto-Central Iranian pronoun inflection

	17a: *Central Ir. PB		Sogdian ⁵⁵		17b: *Central Ir. PBS	
	DIR	OBL	DIR	OBL	DIR	OBL
1SG	<i>az</i>	<i>man</i>	<i>(ə)zu</i>	<i>mana</i>	<i>azu</i>	<i>mana</i>
2SG	<i>tū</i>	<i>tau</i>	<i>taγu</i>	<i>tawa</i>	<i>tū</i>	<i>tawa</i>
1PL	<i>amāx</i>		<i>māx</i>		<i>amāx</i>	
2PL	<i>(ə)šmāx</i>		<i>(ə)šmāx</i>		<i>(ə)šmāx</i>	

While this system seems overall coherent, the Sogdian 2SG *taγu* is divergent from the neighbouring languages. For the present purposes, the form is maybe best treated as a specific development of Sogdian,⁵⁶ although of course it cannot be ruled out from our bottom-up perspective that it contains a remnant of something old.

3.2.2 Pronominal clitics

Just as in most other Ir. languages, enclitic pronouns (also called pronominal clitics) are part of the pronominal system of the languages under discussion, with the exception of Zazaki (and some other varieties that have likewise lost them). I thus use Sorani data for comparison, which is comparatively close to Zazaki in sharing isoglosses such as PIE **tu* > Ir. **θw* > *w* in instances such as *čwār* ‘four’ (Parthian *čafār*) vs. Persian *čahār*.⁵⁷ More precisely, the Sorani data in **Fig. 18a** are from dialects that show forms in addition to those shared by Persian (which might imply lesser influence from Persian).

Fig. 18: Pronominal clitics in Central Iranian⁵⁸

18a	Bactrian	Parthian / Middle Persian	cf. Sorani	18b	*Central Ir. PB
1SG	=μo, PREP=μαγo	=(V) <i>m</i>	=(i) <i>m</i>		=(u) <i>m</i>
2SG	*=δo, =δηo, PREP=φαγo	=(V) <i>d</i> , =(V) <i>t</i>	=(i) <i>t</i> , = <i>u</i>		=(V) <i>d/t</i> , = <i>f</i> (?)
3SG	=ηo etc.	=(V) <i>š</i>	= <i>ē</i> , = <i>ī</i>		=(i) <i>š</i> , = <i>ē(i?)</i>
1PL	=μηvo	= <i>mān</i> , MP = <i>n</i>	= <i>mān</i> , =(i) <i>n</i>		= <i>mān</i>
2PL	=δηvo	=(V) <i>tān</i> , =(V) <i>dān</i>	= <i>tān</i> , = <i>ū</i>		= <i>d/tān</i> , = <i>f</i> (?)
3PL	=ηvo etc.	=(V) <i>šān</i>	= <i>yān</i>		= <i>šān</i> , = <i>yān</i>

The first observation to be made about the clitics in **Fig. 18a** is that most PL forms are derived

⁵⁵ YOSHIDA (2009:290).

⁵⁶ See SIMS-WILLIAMS (1983:48) for a discussion of Sogdian *taγu* (assuming a development via dissimilation **tuwam* > **tuwu* > **t(u)γu*).

⁵⁷ For further discussion of this isogloss, see SIMS-WILLIAMS 2004a and KORN 2013b.

⁵⁸ Data from SIMS-WILLIAMS (BD II:41), GHOLAMI (2009:133); DURKIN-MEISTERERNST (2014:209f., see also KORN 2009b:160 for more details on the distribution of these forms); MACKENZIE (1961b:76f.).

from the corresponding SG ones by addition of an ending *-ān*, which is identical in form to the OBL.PL suffix of the nouns (**Fig. 12**). Indeed, this ending is suitable for this use since the pronominal clitics have OBL function. While these PL forms look secondary a priori, the innovation seems to be reconstructible for Central Iranian (**Fig. 18b**). Bactrian appears to share this derivation of the PL clitics from the SG ones, but the vowel is divergent. As a preliminary hypothesis, one might perhaps assume influence within Bactrian of the 3SG clitic, first on the 3PL, then on the other forms.⁵⁹

In addition, there are a few PL forms which are not synchronically explainable. This applies to Sorani and the MP 1PL $=(V)n$. It is maybe not necessary to reconstruct this for Central Iranian (unless one wishes to suggest that Sorani is a member of Central Iranian), but it shows that a second set of PL clitics was present at some point, and is likely to be inherited since it is not derivable synchronically. The same holds for Sorani 2PL $=\bar{u}$.⁶⁰

In addition to the usual clitics, Bactrian also shows some forms occurring after prepositions. Comparing 1SG $=\mu\alpha\gamma o$ to $=\mu o$, the former seems “longer” by an element $-\alpha\gamma-$ that looks like the extremely frequent nominal suffix, or alternatively might be a combination with a deictic element as it often happens in pronouns (cf. French *celui-ci*). Even more intriguing is the 2SG $=\phi\alpha\gamma o$, likewise showing $-\alpha\gamma-$, but here, the basis does not even look similar to the common clitic ($=\delta-$). There is a certain parallelism in that some Sorani varieties show a form $=u$. Two forms thus seem to be necessary for Central Iranian. Recalling Parthian *čafār* vs. Sorani *čwār* ‘four’ mentioned above, one might assume that the Proto-Central Ir. form had $*f$. The specific function of this clitic is not clear so far.

So far as the variation $=(V)t/d$ in the 2nd person is concerned, one might assume that they are sandhi variants (in the PL, one would have, depending on the preceding word-final, [+voiced] $=dān$, [-voiced] $=tān$). The same variation could have been introduced into the singular (where one rather expects an epenthetic vowel when the preceding word ends in a consonant), or $=t$ may have been adjusted to the free pronoun (or both). For the moment being, I opt for $=d/t$ as variants for Central Iranian PB.

There are also (at least) two different forms for the 3SG, $=(V)\check{s}$ in Parthian being clearly unrelated to the vocalic clitics in the other languages, with no explanation either for the moment being as to why there are several forms. While it is not obvious which vowel to reconstruct for the vocalic clitic, nor whether it should be one or more forms, at least one clitic consisting in a long vowel (or even a diphthong) seems to be called for.⁴⁶

Here as well, Sogdian contributes interesting data (**Fig. 19a**), which also shed light on some more obscure forms of the neighbouring languages. Agreeing with Bactrian, Parthian and Middle Persian, Sogdian shows PL forms based on the singular ones (even if the *-a-* is short here), but the 2PL is $=f-an$. This form might easily be due to influence from the other PL forms, and the $=f$ already suggested for Proto-Central Iranian appears to be the *lectio difficilior*.

The most important point about the Sogdian forms is that “some texts show case distinctions” (YOSHIDA 2009:290), noted in **Fig. 19a**, which is an important element for the interpretation of the forms of the neighbouring languages. The distribution seen in the 2SG, $=t(\bar{i})$ for the GEN/DAT vs. $=f$ for the other cases, could then be assumed also for the 2PL.⁶¹

⁵⁹ Thus also SIMS-WILLIAMS (BD II s.v. $-\eta\upsilon o$ etc.).

⁶⁰ Sorani is not the only WIr. language in preserving PL clitics not based on the SG ones (see KORN 2009b for more discussion).

⁶¹ SIMS-WILLIAMS (1996b:161, 164 derives Sogdian $=t$ from GEN/DAT $*tai$, and $=f$ from ACC $=\theta w\bar{a}$, ABL $*\theta wad$).

Fig. 19: *Proto-Central Iranian pronominal clitics

19a	Sogdian ⁶²	19b	*Central Ir. PB revised	19c	*Central Ir. PBS
1SG	= <i>m(ī)</i> , PREP= <i>mā</i>		= <i>(u)m</i>		GEN/DAT = <i>m(ī)</i> otherwise = <i>(u)m</i>
2SG	GEN/DAT = <i>t(ī)</i> ACC,INST/ABL = <i>f</i> , PREP= <i>fā</i>		OBL B = <i>(V)d/t</i> , OBL A = <i>f</i>		GEN/DAT = <i>(V)t(ī)</i> , otherwise = <i>f</i>
3SG	= <i>š(ī)</i> , ACC= <i>šu</i>		OBL B = <i>š</i> , OBL A = <i>ē(i?)</i>		GEN/DAT(?) = <i>š(ī)</i> , otherwise = <i>ē(i?)</i>
1PL	= <i>man</i>		= <i>mān</i>		= <i>mān</i>
2PL	= <i>fan</i>		OBL B = <i>d/tān</i> , OBL A = <i>f</i>		GEN/DAT = <i>tān</i> , otherwise = <i>f</i>
3PL	= <i>šan</i>		OBL B = <i>šān</i> , OBL A = <i>yān</i>		GEN/DAT(?) = <i>šān</i> , otherwise = <i>yān</i>

Sogdian does not provide data for the distribution of 3SG *=*š* vs. *=*ē(i?)*. There are only forms from =*š*, although one expects the 3SG to be the most frequent pronominal clitic. A possible hypothesis, even if speculative, could be the following: since 2SG =*t(ī)* is GEN/DAT, one might perhaps tentatively assume that =*š(ī)* is originally a GEN/DAT form as well, and ACC =*šu* shows the nominal case ending -*u* (see **Section 3.3**). If this is so, *=*ē(i?)* could perhaps be the original ACC form, which in Sogdian would have been replaced by =*šu* by a secondary adjustment to the nouns. The same then would hold for the 2PL =*šān*, possibly likewise originally GEN/DAT, which would leave *=*yān* for the other OBL functions. However, this scenario seems less certain than that for the 2nd person.

As in Bactrian, there are specific forms in Sogdian occurring in combination with certain prepositions. The older spelling of *čā*=*mā* <c'm'> ‘from me’ etc. is <c'm'kh> etc.,⁶³ which seems to fit well with Bactrian =*μαγο*. Chorasmian and Munji (one of the Pamir languages) also show prefixed forms (Munji *žāmo*x ‘from us’). Noteworthily, Chorasmian and Munji are not among the languages sharing the innovated 2PL pronoun of the pattern *τωμαχο* (cf. fn. 33) with Bactrian.⁶⁴ It seems that the prepositional formations are best treated as areal phenomena as well.

The contribution of the Sogdian data here is quite different from that discussed in **Section 3.2.1**: while Sogdian essentially shares the paradigm of personal pronouns found in Bactrian and Parthian, reflecting (as per the final vowels) a somewhat earlier stage of the same paradigm, the Sogdian pronominal clitics explain a distribution of multiple forms synchronically found in the neighbouring languages. It thus seems reasonable to reconstruct a case distinction also for Central Iranian PB. The system emerging from this argument might thus be rather on the level of **Fig. 13b**, exploiting the data available for a revised paradigm of Central Iranian PB, established with a little help of data from beyond.

It is not immediately obvious how to label the slots, given that “GEN/DAT” emerge from Sogdian, not from data within Central Iranian PB, and have also been assigned by our knowledge of earlier stages of Iranian and are thus not permitted in our bottom-up approach. The labels OBL B / A (the latter vaguely hinting at ACC) thus seems adequate.

⁶² YOSHIDA (2009:290f.).

⁶³ Nicholas SIMS-WILLIAMS (p.c.).

⁶⁴ Cf. WENDTLAND (2009:180, 182f.) for discussion of the 2PL pronouns.

For Central Iranian PBS, on the other hand, the cases as found in Sogdian can surely be assumed (**Fig. 19c**). For this stage, additional considerations seem to be appropriate. For instance, judging by the difference in vocalism between the Sogdian 2SG =*t(ī)* vs. =*f*, one might perhaps speculate that the *-ī* of the 1SG belongs to the GEN/DAT as well for Central Iranian PBS. There is no “bottom-up” evidence for a case distinction in the 1PL, though.

For the 2SG, Sogdian has =*t*, and this might indeed be more fitting for the earlier stage of Central Iranian PBS, and which I thus assume also for the 2PL.

3.3 The case system again

The system established in **Fig. 19b**, showing a case distinction in the oblique domain for Central Iranian PB, seems to encourage another look at the case system discussed in **Section 3.1**. In this perspective, it is noteworthy that there are two different forms for the family terms in the slot DIR.SG (**Fig. 13**), viz. *pid*, *pidar*, the latter also being the form of the OBL.SG and the DIR.PL. The two forms being distributed in an odd way may hint at there being originally more slots.

At this point, a look at Sogdian might again be of help. Sogdian shows a double paradigm of noun inflection: “heavy stems” share the SG paradigm of **Fig. 13a**, but “light stems” have a rather elaborate paradigm: NOM *-i*, ACC *-u*, GEN-DAT *-e*, LOC *-ya*, INSTR-ABL, VOC *-a* for the main inflectional class.⁶⁵ The *-u* of the ACC seen here (as in the 3SG clitic, **Section 3.2**) could then be the same element assumed for the DIR.SG slot in **Fig. 13b**, so that the DIR case would include forms that were ACC in a previous stage. In combination with the case distinction seen for the pronominal clitics, one possible solution might be to postulate an additional slot. Assuming that the shorter form *pid* is the “real” DIR, this would leave *pidar* for the “OBL A” (**Fig. 20**).⁶⁶

Fig. 20: Nominal system of *Proto-Central Iranian PB

		DIR	OBL A	OBL B
pronominal clitics	1SG	–	= <i>m</i>	= <i>m(ī)</i>
	1PL		= <i>mān</i>	
	2SG		= <i>f</i>	= <i>t(ī)</i>
	2PL		= <i>fān</i>	= <i>tān</i>
	3SG		= <i>ē(i?)</i>	= <i>š(ī)</i>
	3PL		= <i>yān</i>	= <i>šān</i>
family terms	SG	–∅	<i>-ar</i>	<i>-ar</i>
	PL		<i>-ar</i>	<i>-ar-ān</i>
other nouns	SG		<i>-u/o</i>	<i>-ē</i>
	PL		<i>-ē</i>	<i>-ān, -īn, -ūn</i>
personal pronouns	1SG		<i>az</i>	<i>man</i>
	1PL		<i>amāx</i>	
	2SG		<i>tū</i>	<i>tau</i>
	2PL		<i>(ə)šmāx</i>	

⁶⁵ YOSHIDA (2009:288). The PL has been remodeled in clearly secondary fashion, using a marker *-t*, to which the endings of the SG.F are added. For the history of the Sogdian case system, see SIMS-WILLIAMS 1990.

⁶⁶ See also CANTERA 2009 for the development of the family terms.

4 Conclusion

While the first part of this article outlines the problems with the family tree commonly assumed for Iranian and some of the history that gave rise to the isoglosses on which it rests, the second part suggests an alternative approach. Building on observations on shared morphological innovations, and on the fact that such innovations are often regarded as crucial in determining language affiliation, the position of Bactrian is taken as a starting point for an experiment of establishing a different family tree for Iranian. The shared innovations of Bactrian suggest that it forms a sub-group within the Iranian branch with Parthian; this sub-group also seems to include some New Ir. languages such as Zazaki.

The suggestion of such a sub-group implies the hypothesis of the existence of an ancestor (called “Central Iranian” here) from which these languages are descended. It would also be methodologically required that the grammar of such an ancestor can be reconstructed; it needs to account for the features of its daughter languages, and it needs to be different from its ancestor (i.e. Proto-Iranian) by a set of definable language changes common to the sub-group, but not found in the ancestor language.

As mentioned above, the experiment of reconstructing “Central Iranian” presented in **Section 3**, is not meant as more than a sketch, and a clearly preliminary attempt of suggesting an alternative to the traditional assumption of the Iranian family tree. However, I argue that the result does not look absurd *a priori*, and at any rate not much worse than the traditional assumption of the branches “Eastern” or “Western” Iranian, the impossibility of which has been shown since long ago.

If, then, **Fig. 20** is a fair representation of what one arrives at by bottom-up reconstruction of “Central Iranian”, nouns and full pronouns would share a system of two cases and two numbers while the family terms and the pronominal clitics pattern slightly differently, implying three case slots. In addition to the innovations in the verbal system discussed in **Section 2.2.2**, it is chiefly the pronominal clitics that are specific for this branch so far as the nominal system is concerned.

Much of the pronominal inflection is shared with Sogdian (particularly parallel are the personal pronouns), but the inflection of nouns is considerably different. Bactrian and Sogdian also share specific clitics after prepositions, but do not share the peculiar 2PL personal pronoun. Conversely, the inflection of nouns is shared with Middle Persian, which, on the other hand, is different insofar as the pronouns are concerned.

Re-considering the statement quoted in **Section 1.2** to the effect that an attempt to reconstruct Proto-Eastern Iranian in fact yields Proto-Iranian, the branch suggested here appears to have more chances not to result in the same dilemma: Central Iranian seems to be sufficiently different from Proto-Iranian to stand some chance of existence, and invites further studies on the relations within the Iranian branch.

References

- BARTHOLOMAE, Christian (1904). *Altiranisches Wörterbuch*. Straßburg: Trübner
——— (1920). *Zur Kenntnis der mittelliranischen Mundarten III* [Sitzungsberichte der Heidelberger Akademie der Wissenschaften, phil.-hist. Klasse]. Heidelberg: Akademie der Wissenschaften
BOLOGNESI, Giancarlo (1960). *Le fonti dialettali degli imprestiti iranici in Armenio*. Milano:

- Società editrice vita e pensiero
- CANTERA, Alberto (2009). "On the History of the Middle Persian Nominal Inflection". In: HINTZE et al., 17-30
- CHEUNG, Johnny (2007). *Etymological Dictionary of the Iranian Verb*. Leiden, Boston: Brill
- CLACKSON, James (2007). *Indo-European Linguistics. An Introduction*. Cambridge: Cambridge University Press
- DURKIN-MEISTERERNST, Desmond (2000). "Zum parthischen Verbum". In: *Indoarisch, Iranisch und die Indogermanistik. Arbeitstagung der Indogermanischen Gesellschaft vom 2. bis 5. Oktober 1997 in Erlangen*. Ed. Bernhard FORSSMAN, Robert PLATH. Wiesbaden: Reichert, 75-88
- ____ (2007). "The use of Parthian 'h'z and related forms in Sogdian and Bactrian". In: *Darb slovesny. Festschrift für Christoph Koch zum 65. Geburtstag*. Ed. Wolfgang HOCK, Michael MEIER-BRÜGGER. München: Otto Sagner, 31-44
- ____ (2014). *Grammatik des Westmitteliranischen (Parthisch und Mittelpersisch)*. Vienna: Österreichische Akademie der Wissenschaften
- EDELMAN, Joy I. & Leila R. DODYKHUOEVA (2009). "The Pamir Languages". In: WINDFUHR, 773-786
- ____ (2009). "Shughni". In: WINDFUHR, 787-824
- GEIGER, Wilhelm (1890). "Etymologie des Balūčī". In: *Abhandlungen der I. Classe der Königlich Bayerischen Akademie der Wissenschaften* 19/1, 105-153
- GERSHEVITCH, Ilya (1964). "Iranian chronological adverbs." In: *Indo-Iranica. Mélanges présentés à Georg Morgenstierne à l'occasion de son soixante-dixième anniversaire*. Ed. Georges REDARD. Wiesbaden: Reichert, 78-88 (= id. 1984: *Philologia Iranica*. Wiesbaden: Reichert, 179-189)
- GHOLAMI, Saloumeh (2009). "Ergativity in Bactrian". In: *Orientalia Suecana* 58, pp. 132-141
- ____ (2014). *Selected Features of Bactrian Grammar*. Wiesbaden: Harrassowitz
- GIPPERT, Jost (2009). "Zur dialektalen Stellung des Zazaki". In: *Die Sprache* 47, pp. 77-107
- HINTZE, Almut, François DE BLOIS, Werner SUNDERMANN (eds.) (2009). *Exegisti monumenta. Festschrift in Honour of Nicholas Sims-Williams*. Wiesbaden: Harrassowitz, 17-30
- HORN, Paul (1899). "Reimende ê î ô û im Šāhnāme". *Zeitschrift für vergleichende Sprachforschung* 35, pp. 155-192
- ____ (1901). "Neupersische Schriftsprache". In: *Grundriss der iranischen Philologie* II/2. Ed. Wilhelm GEIGER & Ernst KUHN. Straßburg: Trübner, 1-200
- HÜBSCHMANN, Heinrich (1895). *Persische Studien*. Straßburg: Trübner
- ____ (1897). *Armenische Grammatik*. Leipzig: Breitkopf & Härtel (repr. Hildesheim etc.: Olms 1992)
- JAHANI, Carina & Agnes KORN (eds.) (2003). *The Baloch and Their Neighbours: Ethnic and Linguistic Contact in Balochistan in Historical and Modern Times*. Wiesbaden: Reichert
- JÜGEL, Thomas (2013). "Die Verbalpartikel BE im Neuiranischen". In: *Indogermanische Forschungen* 113, 299-319
- ____ (2014). "On the Linguistic History of Kurdish." In: *Kurdish Studies* 2, 123-142
- ____ (2015). *Die Entwicklung der Ergativkonstruktion im Alt- und Mitteliranischen. Eine korpusbasierte Untersuchung zu Kasus, Kongruenz und Satzbau*. Wiesbaden: Harrassowitz
- KERIMOVA, Aza A., Ahmed MAMEDZADE & Vera S. RASTORGUEVA (1980). *Giljansko-russkij slovar'*. Moscow: Nauka
- KORN, Agnes (2003). "Balochi and the concept of North-West Iranian". In: JAHANI / KORN, 49-60
- ____ (2005). *Towards a Historical Grammar of Balochi: Studies in Balochi Historical Phonology and Vocabulary*. Wiesbaden: Reichert
- ____ (2009a). "Lengthening of i and u in Persian". In: HINTZE et al., 197-213
- ____ (2009b). "Western Iranian pronominal clitics". In: *Orientalia Suecana* 58, 159-171

- _____. (2013a). "Final troubles: Armenian stem classes and the word-end in late Old Persian". In: *Commentationes Iranicae, Vladimiro f. Aaron Livschits nonagenario donum natalicium. Sbornik statej k 90-letiju Vladmira Aronoviča Livšitsa*. Ed. Pavel LURJE, Sergei TOKHTAS'JEV. St. Petersburg: Nestor-Istorija, 74-91
- _____. (2013b). "Footnotes on a Parthian Sound-Change". In: *Bulletin of the School of Oriental and African Studies* 76, 99-110
- _____. (2016). "Arménien *karmir*, sogdien *krm'yr* et hébreu *karmīl* « rouge »". In: *Bulletin of the School of African and Oriental Studies* 79, 1-22
- KORN, Agnes & Desmond DURKIN-MEISTERERNST (2009). "Parthian seen from a Balochi perspective." *Studia Iranica* 38, 7-23
- KORN, Agnes & Thomas JÜGEL (2010). "Grouping Iranian Languages Polydimensionally." (*Poster at the 31. Deutscher Orientalistentag*). Marburg.
<https://hal.archives-ouvertes.fr/hal-01351675>
- KÜMMEL, Martin (2007). *Konsonantenwandel. Bausteine zu einer Typologie des Lautwandels und ihre Konsequenzen für die vergleichende Rekonstruktion*. Wiesbaden: Reichert
- LAZARD, Gilbert, Frantz GRENET & Charles DE LAMBERTERIE (1984). "Notes bactriennes". In: *Studia Iranica* 13, 199-232
- LECOQ, Pierre (1989). "Le classement des langues irano-ariennes occidentales." In: *Études irano-aryennes offertes à Gilbert Lazard*. Ed. Charles-Henri de Fouchécour, Philippe Gignoux. Paris: Association pour l'avancement des études iraniennes, 247-264
- MACKENZIE, D. Neil (1954). "Gender in Kurdish". In: *Bulletin of the School of Oriental and African Studies* 16, 528-541 (= id.: *Iranica Diversa* II. Roma 1999, 353-366)
- _____. (1961a). "The Origins of Kurdish". In: *Transactions of the Philological Society* 1960, 68-86 (= id.: *Iranica Diversa* II. Roma 1999, 369-387)
- _____. (1961b). *Kurdish Dialect Studies* I. London: Oxford University Press
- MALMISANIJ (1992). *Zazaca-Türkçe sözlük. Ferhengê Dimulki-Tirki*. Istanbul: Deng
- MILLER, Boris V. (1953). *Talyšskij jazyk*. Moscow: Nauka
- MORGENSTIERNE, Georg (1929). *Indo-Iranian Frontier Languages I: Parachi and Ormuri*. Oslo etc.: H. Aschehoug & Co.
- _____. (2003). *A New Etymological Vocabulary of Pashto*. Wiesbaden: Reichert
- PALMER, Leonard R. (1980). *The Greek Language*. London, Boston: Faber & Faber
- PAUL, Ludwig (1998). *Zazaki. Grammatik und Versuch einer Dialektologie. Beiträge zur Iranistik* 18. Wiesbaden: Reichert
- _____. (1998a). "The position of Zazaki among West Iranian languages". In: *Proceedings of the Third European Conference of Iranian Studies held in Cambridge, 11th to 15th September 1995. Part I: Old and Middle Iranian Studies*. Ed. Nicholas SIMS-WILLIAMS. Wiesbaden: Reichert, 163-177
- _____. (2003). "The position of Balochi among Western Iranian languages: The verbal system". In: JAHANI / KORN, 61-71
- _____. (2009). "Zazaki." In: WINDFUHR, 545-586
- RASTORGUEVA, Vera S. & Elena K. MOLČANOVA (1981a). "Srednepersidskij jazyk". In: *Osnovy iranskogo jazykoznanija* 2. Moscow: Nauka, 6-146
- _____. (1981b). "Parfjanskij jazyk." In: *Osnovy iranskogo jazykoznanija* 2. Moscow: Nauka, 147-232
- SCHMITT, Rüdiger (ed.) (1989). *Compendium Linguarum Iranicarum*. Wiesbaden: Reichert
- _____. (2000). *Die iranischen Sprachen in Geschichte und Gegenwart*. Wiesbaden: Reichert
- SIMS-WILLIAMS, Nicholas (1981). "Notes on Manichaean Middle Persian morphology". In: *Studia Iranica* 10, 165-176
- _____. (1983). "Chotano-Sogdica". In: *Bulletin of the School of African and Oriental Studies* 46, 40-51
- _____. (1989). "Eastern Middle Iranian". In: SCHMITT, 165-172
- _____. (1990). "Chotano-Sogdica II: aspects of the development of nominal morphology in

- Khotanese and Sogdian". In: *Proceedings of the First European Conference of Iranian Studies, held in Turin, September 7th-11th, 1987 by the Societas Iranologica Europaea. Part 1: Old and Middle Iranian Studies*. Ed. Gherardo Gnoli & Antonio Panaino. Roma: Istituto Italiano del medio ed estremo oriente, pp. 275-296
- _____. (1996a). "Eastern Iranian languages". In: *Encyclopædia Iranica* VII, 649-652
- _____. (1996b). "Another Sogdian ideogram?" In: *Transactions of the Philological Society* 94, 161-166
- _____. (1997). *New Light on Ancient Afghanistan: The Decipherment of Bactrian*. London: SOAS
- _____. BD = (2000-2012). *Bactrian Documents from Northern Afghanistan* [*Corpus Inscriptionum Iranicarum* II, III, 5]. Oxford etc.: Oxford University Press, 3 vol.
- _____. (2004a). "The Parthian abstract suffix -yft." In: *Indo-European Perspectives. Studies in Honour of Anna Morpurgo Davies*. Ed. John H.W. PENNEY. Oxford / New York: Oxford University Press, 539-547
- _____. (2004b). *The Bactrian language (handout of a lecture at Bonn university, June 2004)*
- _____. (fthc.). "The Name of the Kushan Goddess Ομμᾶ". In: *Studia philologica iranica. Gherardo Gnoli Memorial Volume*. Ed. Adriano ROSSI et al.
- SUNDERMANN, Werner (1989). "Parthisch". In: SCHMITT, 114-137
- TEDESCO, Paul (1921). "Dialektologie der mittelliranischen Turfantexte." *Monde Oriental* 15, 184-258
- WENDTLAND, Antje (2009). "The position of the Pamir languages within East Iranian" In: *Orientalia Suecana* 58, 172-188
- WINDFUHR, Gernot (1975). "Isoglosses: A Sketch on Persians and Parthians, Kurds and Medes". In: *Monumentum Henrik S. Nyberg II* [*Acta Iranica* 5], 457-472
- _____. (ed.) (2009). *The Iranian Languages*. London, New York: Routledge
- YOSHIDA Yutaka (2009). "Sogdian". In: WINDFUHR, 279-335