

Reflexes of Proto-Iranic **w-* as evidence for language contact

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Abstract

The sound reconstructed for the Proto-Iranic languages as word-initial **w-* (supposedly < PIE **u-*) shows up as [w], [v], [β], [b], [g^(w)], or [γ^(w)] between and within the various modern Iranian languages, in no clearly predicatable way. Some languages display more of one reflex than the others, but (with the exception perhaps some languages with a reflex like [w]) all languages display some variety of reflexes, the distribution of which has yet to be explained in any meaningful way on the basis of language-internal processes.

The purpose of this investigation is to determine the origin of each of the reflexes which appear in the modern Iranian languages. In order to do so, I will refer to common assumptions (made on the basis of cross-linguistic evidence) regarding the frequency and likelihood of certain phonological changes. I will also engage primary source material in and about pre-modern forms of these languages, other historical Iranian languages now defunct, and non-Iranian languages both ancient and modern, contact with which may have induced or promoted change in the Iranian languages under investigation.

I conclude that fortition to a B-type reflex ([b]) is likely the result of heavy contact between Northern Kurdish languages and Western varieties of Middle and Early New Persian on one hand, and Middle Aramaic languages on the other. Initial B then spreads eastward with the expansion of the use of New Persian associated with Islamization. G-type reflexes ([g^(w)] and [γ^(w)]) seem to have begun as a variant of initial **w-* before a subset of vowels in a certain part of the Western Iranian world, but only expanded to other positions in Balochi, very likely after the movement of its speakers eastward into their current position. This feature seems to have also spread to some extent to a small subset of Eastern Iranian languages in proximity to Balochi. W-type reflexes ([w], [v], and [β]) are largely conservations of the original Proto-Iranic **w-*. Where languages contain lexemes which deviate from the expected reflex, they seem to be the result of borrowing.

1 Introduction

1.1 Traditional genetic division of Iranian languages

There are many issues regarding the genetic division of the Iranian languages which continue to be disputed by scholars. It is not the purpose of this work to engage such discussions on any large scale.¹ However, since it will be necessary to discuss the possibility of certain features being inherited rather than resultant from language contact, it behooves us to examine likely genetic relationships between the languages in question. The tree in figure 5 (see appendix B) displays an abbreviated division of the branches and languages within the Iranian family which are most relevant to the present research.

The most important – and consequently, least disputed – division within the Iranian family is between the ‘Western’ languages and the ‘Eastern’ languages. This division must have occurred well before the appearance of the first written records in Iranian, i.e. the OPer² material from southwestern Iran, the oldest of which dates back to the 6th century BCE. Consequently, the reader should keep in mind that any appearance of a sound change across the boundaries of this divide is must either be the result of contact (either between the Eastern and Western Iranian languages in question, or between the two Iranian languages and a common third language which induces a change in both), or concurrent evolution under some separate auspices.³ The same is true for any pair of languages which bridge a genetic divide between two sub-branchings not all of whose members share the same innovation.

1.2 Discussion of Proto-Iranian *w- in the existing literature

Historical versions of the Persian language (OPer and MPer) are written in scripts which make a regular distinction between /b/ and /w/ or /v/. With the exception of a handful of lexemes in MPer, OPer and MPer words derived from Proto-Indo-European roots beginning with *u- display a W-type phoneme, suggesting a (at least a relative) conservation of the ancestral form. NPer as it is spoken today, however, displays the phoneme [b] as a reflex of PIE initial *u- in the majority of roots, and [g] or [w] in a minority of others. This fact alone should have been surprising enough to call the attention of scholars, given that there is no obvious feature distinguishing those roots which resulted in the different NPer reflexes. Surprisingly, however, there seems to

¹Some of the findings of this paper may indeed help to support certain arguments made regarding the classification of one disputed branch or another; see section 3.4.

²For a list of language abbreviations used in this paper, see appendix A.

³In the absence of common contact situations, concurrent evolution is not the preferred method of explanation in historical linguistics. Nevertheless, it may be necessary to resort to such an explanation in the case of Khot; see section 2.2.3.

have been no thorough treatment of this topic in the literature on Indic historical phonology to date.

Following [Tedesco \(1921\)](#), [MacKenzie \(1999, p. 377\)](#) uses the change from **w-* to /b/ as one of a handful of phonological diagnostics to determine a closer genetic relationship between Kurd and NPer than previously thought. In so doing, both men ignored the fact that initial /w/ is attested in Pers as late as the Early NPer period, well beyond the point at which Kurd and the other NW Indic languages must have diverged from the SW branch which contained Pers. It seems as if, despite [Windfuhr \(1989, p. 2\)](#)'s wise exhortations that the distribution of many features within Indic cannot be explained without reference to contact between Iranian languages, [Tedesco](#) and [MacKenzie](#) failed to recognize the shared development of initial /b/ from Proto-Indic **w-* in both Kurd and NPer as an example of one such feature.

Regarding the development of G-type reflexes from Proto-Indic **w-*, even less has been written. [Korn \(2005\)](#) is the first to state outright the correspondence between Balo [g^(w)]/[ɣ^(w)],⁴ but she makes no mention of what might have prompted this change, not of any possibility of connecting the G-type reflexes in Balo with the handful of such reflexes which appear in other Indic languages.

1.3 Methodology of this study

In order to develop a more comprehensive view of the distribution of the various reflexes of Proto-Indic **w-*, it would be necessary to create a database of each Indic language – past and present – for which there are data available, including for each language as many roots as possible thought to have been derived from a Proto-Indic root with initial **w-*. Several dozens of man-hours into this endeavor, I came to the realization that a number of factors complicate the compilation of such a database. While data collection is ongoing, I have decided for the purposes of this study to focus the bulk of my efforts on those languages for whom relatively reliable etymological dictionaries or word-lists already exist. Mercifully, the authors of many of these resources have already scoured the Indic-speaking world for cognates to their dictionary entries, and their work has expanded my database significantly. I also made reference to a number of multi-language etymological tools, such as the monumental *Altiranisches Wörterbuch*, compiled by [Bartholomae \(1961\)](#), and [Cheung \(2007\)](#)'s very useful *Etymological Dictionary of the Iranian Verb*. These data I supplemented with inferences made on the basis of my knowledge of some of these languages.

After compiling a sizeable corpus of words to be analyzed, it became clear that – with the exception perhaps of the Cent languages of the NW Indic subgrouping – most languages can be classified into W-, B-, and G-types according to the reflex

⁴Each of these variants appears in some dialect of Balo, and so it is reasonable to consider them descendant from the same archiphoneme.

exhibited by the majority of Proto-Iranic **w-* initial words in each language. The precise implications of this division for each language will be determined below.

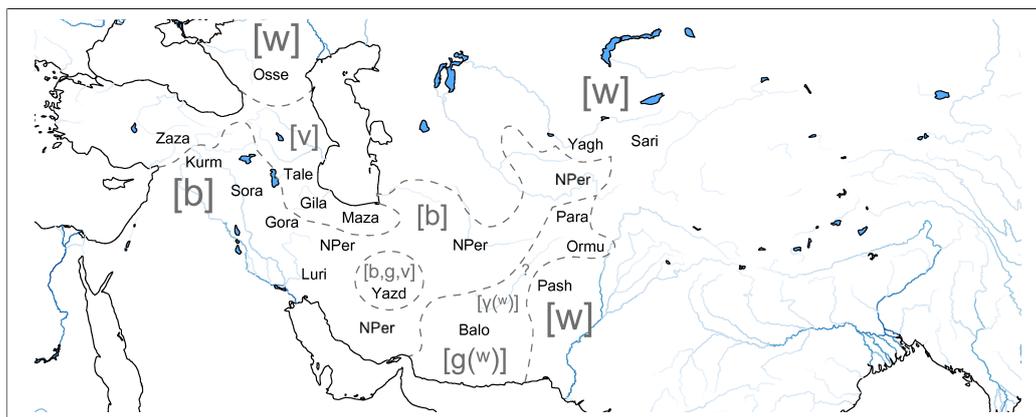
The remainder of this study will be occupied with determining where and when each reflex appears, and how it spreads. In some cases, I have determined the change which resulted in the new feature to be primarily language internal, i.e. phonotactic in nature, whereas in many cases a novel reflex is very likely to have originated and/or spread as the result of language external factors, i.e. contact with other languages.

2 Survey of languages

2.1 Distribution of variants in modern Iranian languages

2.1.1 Overview

Figure 1: present-day distribution of reflexes of Proto-Iranic **w-*



Among the modern Iranian languages, W-, B-, and G-type reflexes can all be found. Generally, a language displays much more of one type than the other, although for many of the NW Iranian languages of the Cent grouping (such as Yazd), this is not always the case.

Table 1 displays the distribution of each reflex type for four languages with relatively large amounts of data: Balo, Kurm, Osse, Yazd, and NPer. It should be noted that, while most languages display much more of one type of reflex than the others, only the W-type languages have the privilege of displaying only one reflex of Proto-Iranic **w-*.⁵

⁵Incidentally, this supports the notion that the Proto-Iranic archiphoneme was similar to [w].

Table 1: number of words displaying different reflexes of Proto-Iranic **w-* in some typical modern Iranian languages

Language	W-words	B-words	G-words	Total
Balo	4 (16%)	2 (8%)	19 (76%)	25
Kurm	5 (8%)	47 (73%)	11 (17%)	63
Osse	15 (100%)	0	0	15
Yazd	6 (40%)	5 (33%)	4 (27%)	15
NPer	5 (7%)	50 (72%)	14 (20%)	69

2.1.2 W-type: [w], [v], & [β]

Among the languages which display W-type reflexes are all the extant East Iranian languages, with the exception of Ormu and Para.⁶ The Caspian languages also display largely W-type reflexes, with a few exceptions that seem to be borrowings from NPer.

Zaza displays almost exclusively W-type reflexes, despite the fact that it is entirely cut off from the rest of the Iranian-speaking world by the strongly B-type Kurmancî. Even more curious, Gora (Zaza's closest relative) is almost entirely a B-type language.

Yazd displays an almost even mixture of W-, B-, and G-type reflexes, though the presence of some W-type variants for B- and G-type words strongly suggests that Yazd is (or was), at its core, a W-type language. This situation is typical of most of the Cent NW Iranian languages, as well as of other dialects in Central Iran with different genetic affiliations.

2.1.3 B-type: [b]

B-type languages dominate the southwestern edge of the Iranian-speaking world. The most conspicuous member is NPer, which extends up into the northeast in the form of Dari and Tajiki. All modern standard forms of NPer display a remarkable uniformity in terms of the reflexes which they exhibit for Proto-Iranic **w-* (though as we shall see in section 2.2.3, this was not always the case). It remains to be seen whether non-standard varieties of these languages display some deviation from the documented reflexes; I have been unable to find any evidence of this as of writing.

The Kurdish languages – Kurm and Sora – are both solidly B-type languages, though they share a handful of terms (see section 3.2) which display initial [w] as well. At least some of the small number of G-type reflexes in Kurdish seem to be borrowings from NPer (Цаболов, П. Л., 2001).

As mentioned above, Gora displays mostly B-type reflexes. (Though given its documented history of intense contact with Sora (Leezenberg, 1992) this is likely

⁶For the possible implications of these findings for the disputed classification of Ormu-Para, see section 3.3.

due to contact; see section 3.3.)

2.1.4 G-type: [g^(w)] & [ɣ^(w)]

Many of the G-type reflexes in otherwise B-type languages seem to be shared. Some which are specific to NPer and not likely to have been borrowed are verbs displaying the prefix [gυ-].⁷ These will be discussed in section 3.2.

Aside from the handful of G-type reflexes found in otherwise B-type languages, the only true bastion of G-type reflexes is Balo. Balo displays almost entirely G-type reflexes in all parts of its lexicon. Its few B- and W-type reflexes are almost certainly borrowings from NPer or Pash, respectively.

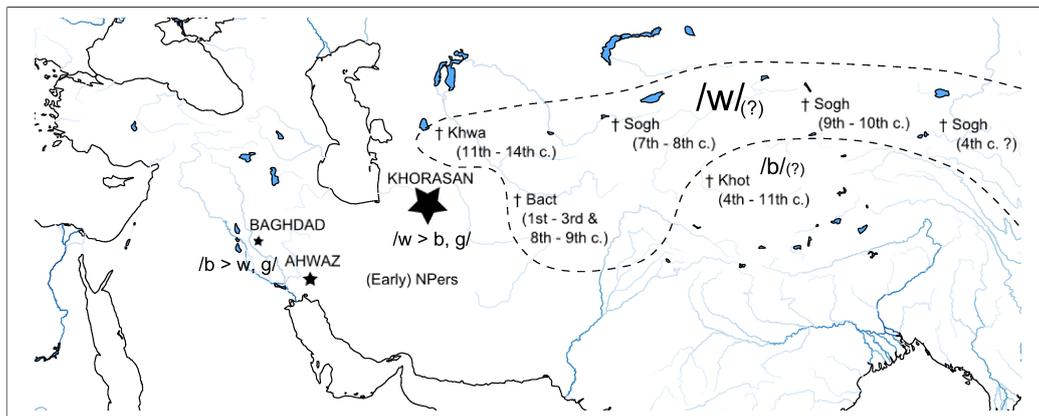
Ormu and Para display a reflex [ɣ] for the few attested lexemes gathered. Whether this is a regular reflex for Proto-Iranic *w- remains to be seen, though if this is the case the find could be significant. If Ormu and Para are indeed E Iranian, they are the only languages of their branch to consistently display a non-W-type reflex.

A similar situation holds for the two G-type lexemes attested in [Цаболов, P. Л. \(2001\)](#) from the Pashto dialect of Zabul in southern Afghanistan, though the paucity of data makes any certain claims regarding the significance of this dialect impossible.

2.2 Historical distribution of variants

2.2.1 Overview

Figure 2: historical distribution of reflexes of Proto-Iranic *w-



Several problems arise when attempting to take an account of the reflexes of Proto-Iranic *w- in pre-modern Iranic languages. Most W Iranian languages were not

⁷I have preferred to render the vowel and consonant phonemes of NPer as they are pronounced in urban centers of northeastern Iran and western Afghanistan, such as Mashhad and Herat, as these dialects maintain phonemic distinctions which have been lost in standard Tehrani NPer.

recorded in any significant way before the early modern period; indeed, the only W Iranian languages that can be said to possess a real pre-modern literature are MPer and Parth. Unfortunately, many of the scripts in which these languages were written were not equipped to display the range of phonetic possibilities which the modern research might have preferred. Any of the Aramaic-derived scripts, for example, would be hard pressed to render a phonetically complex segment such as [ɣ^w], or indeed the nuanced distinction between [v] and [w]. Furthermore, even if we are able to ascertain with some degree of certainty the probably pronunciation of a given segment, we may not be able to assign it to any given place or time. This is especially true for MPer and Parth, most of the extant manuscripts of which are copies of copies. The vast majority of non-inscriptional material has also been recovered from ancient archives, such as those in Dunhuang or Turfan, making the ascertainment of their place of origin difficult if not impossible.

As a result of the aforementioned issues in transmission of historical Iranian to the present day, we have almost no data from the pre-modern Western Iranian world which can be analyzed with any degree of certainty as regards time or place of origin. Indeed, the first truly datable texts appear at the cusp of the transition into NPer. Among these, a Persian fragment from a largely Arabic manuscript composed in Baghdad (عارف نوشاهی, [Arif Nushahi](#)), an early Judeo-NPer argument from Ahwāz ([MacKenzie, 1999](#), p. 315–377), and the wealth of well-known prose works composed in what Iranian sources refer to as ‘Old Dari’, i.e. early Islamic NPer from Khorasan have been analyzed here.⁸

Eastern Iranian benefits from a slightly larger proportion of monumental inscriptions, as well as contracts and trade documents which encode information regarding time and place of composition in a way in which the religious texts typical of, say, the MPer corpus do not.

2.2.2 W-type

The overwhelming majority of pre-modern Iranian languages seem to have maintained the W-type nature of the original Proto-Iranic *w-. This includes all attested roots within the E Iranian languages (except Khot; see 2.2.3 below), and all but a few lexemes in MPer (see 2.2.3 and 2.2.4 below). The Early NPer of Khorasan also displays W-type reflexes in the majority of roots with initial consonants derived from Proto-Iranic *w-, however these are by no means consistent, even within texts.

⁸For ‘Old Dari’ sources, I have relied heavily on رحیم ذوالنور (Rahim Zuannur) and مهین دخت (Mahindakht Seddiqiyān) (Mahindakht Seddiqiyān)’s excellent works on variation in Early NPer prose, which provide attestations for each variant from the original text of each manuscript cited.

2.2.3 B-type

While the NPer of Khorasan still displays a high proportion of W-type reflexes, the NPer of roughly the same period from further west in Baghdad and Ahwāz displays a much higher proportion of B-type reflexes. The implications of this will be discussed in section 3.3 below.

Only one MPer lexeme – *bbr* ‘tiger’ < Proto-Iranic **wabr-/wagr* – displays /b/ as a reflex of Proto-Iranic **w-*.

Conspicuous in its almost universal conversion of Proto-Iranic **w-* to /b/ is Khot, spoken in the far eastern portion of the Iranian-speaking world. The only other area in which this change is found is among the W Iranian languages spoken at the opposite end of Central Eurasia, and it is not clear why Khot – tucked away in a remote, though historically significant corner of Eastern Turkistan – should share this change with Kurd and NPer. It is possible (though unparsimonious) that the change in Khot occurred independently; see section 3.3 for more discussion as to the potential origins of the change from **w-* to /b/ in Khot.

2.2.4 G-type

No single pre-modern language displays a significant number of G-type reflexes for Proto-Iranic **w-*.

NPer in all areas begins to show some G-type variants in words that display them in standard modern NPer, but never exceeding that amount.

In contrast to its single B-type reflex, MPer displays at least four G-type reflexes. One of these – *gcyr* ‘vizier’ < Proto-Iranic **wi-čay-ra* – has remained or reverted to /w/ in NPer, suggesting that perhaps the distribution of G-type reflexes in MPer was at one point perhaps more widespread than it is now. This hypothesis is also supported by the occasional Greek rendering of two MPer proper names – ΓΟΥΕ ΑΝΤΙΟΧ ΣΑΒΩΡ for MPer *wyḥ* ‘ntywk šhpw(h)l, and ΓΟΥΑΡΑΘΡΑΝΟΣ for MPer *wbl’n* – where the letter Γ ([g] or [ɣ]) is used to represent MPer initial *w*.

3 Explaining variation

3.1 The problem (and advantage) of fortition

As we endeavor to determine the origin and trajectory of the sound changes which produced the variation which we see in the modern reflexes of Proto-Iranic **w-*, it would behoove us to keep in mind the type of sound changes which each reflex necessitates. This enables us to make analogies with other recorded instances of the same or similar sound changes, which may in turn help to pinpoint the factors determining the outcome of sound changes in the Iranian languages which exhibit them.

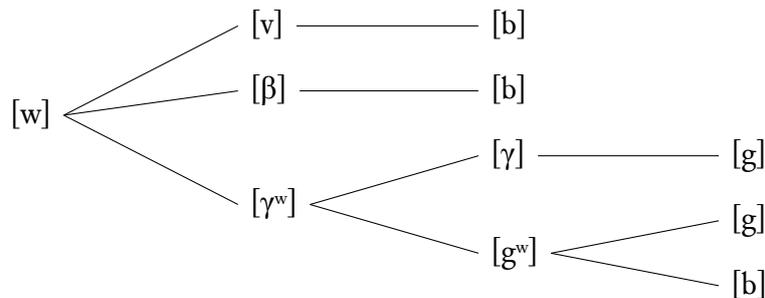
Of the three types of reflexes exhibited by the data explained above:

- W-types ([v], [w], [β]) require minimal if any change to the original segment,
- B-types ([b]) require fortition only, with no change of primary place of articulation, and
- G-types ([g^w], [γ^w]) require both fortition and a change of place of articulation.

The two types of reflexes (B- and G-) which deviate significantly from the ancestral phoneme both require fortition. Diachronic fortition is much rarer than lenition, and is often an indication of external influence in the form of language contact. The change from [v] to [b] in initial position has occasionally been attested in other languages. The best known example of this change appears in Spanish, in which Latin *[v] or *[w] > [β] > [b]. Likewise, the change from [w] to [g] is also attested, though much less commonly so. One such case is the dialect of Uyghur spoken in Turpan, which exhibits the change [w] > [γ^w] > [γ] > [g] (Yakup, 2005, p. 71).⁹

In both of the case studies mentioned above, there is a logical and relatively well-documented trajectory from the archiphoneme [w] to the various resultant forms in each respective language. If we were to plot such common trajectories of fortition from [w] to [b] or [g] in such a way as to be able trace potentially similar developments in the history of Iranian languages, we would be left with the chart in figure 3.

Figure 3: cross-linguistically (comparitively) common paths to fortition from [w]



This tree demonstrates one of the benefits of working with an otherwise perplexing diachronic phenomenon; i.e., the relative rarity of the change in question suggests a ‘trade-mark’ footprint which one can expect to see followed in other instances of the same diachronic change. The tree also demonstrates how the small number of G-type reflexes in W Iranian languages such as NPer and Kurd may simply be the

⁹Incidentally, no explanation has ever been put forth as to the catalysation of fortition in either of these cases.

product of a change once shared by the predecessors of all three sub-branchings, which expanded laterally to other parts of the lexicon in Balo, but advanced further along the path to fortition in Pers and Kurd.

3.2 Morphological/Phonological/Semantic factors

One explanation for the anomalous change from **w-* to [g] in the otherwise largely B-type languages, NPer and Kurd, may be morphological. As noted in section 2.1.4 above, a number of the G-type reflexes in NPer exhibit the intensifying verbal prefix [gʷ]- < Proto-Iranic **wi-*. However, the same prefix in Kurd is usually rendered regularly (i.e., with the expected B-type reflex) as [bɪ]-.

In addition, both NPer and Kurd seem to prefer G-type reflexes for **w-* before Proto-Iranic **i*, **r*, or *ar* in other, non-verbal roots as well. This may indicate a partial, phonologically conditioned change which was halted at some point, perhaps by the introduction of the change of initial **w-* to [b].

It should also be noted that some words – such as those derived from Proto-Iranic **wabh-ri-* ‘spring’ – have almost identical forms in all the daughter languages in which they appear. This strongly suggests that these represent *mots voyageurs*, which are shared via contact back and forth between languages but the exact trajectory of whose transmission may be difficult to assess beyond a point of origin, usually in some stage of Pers.

3.3 Historical evidence for possible contact & migration

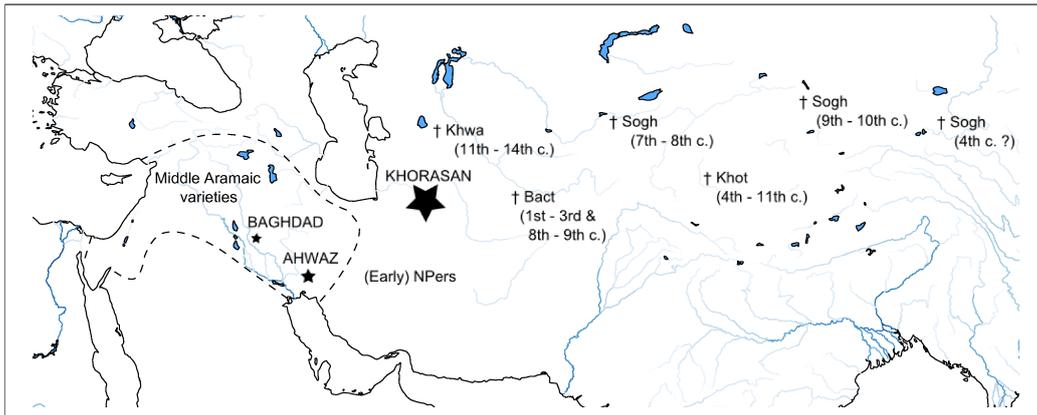
Based on the data analyzed above, we can now begin to make some inferences regarding the origin of the sound changes which produced the B- and G-type reflexes for Proto-Iranic **w-*, as well as the manner in which they may have spread.

The temporal origin of the B-type in NPer and Kurd seems relatively recent, given that the Early NPer samples from Khorasan still display a large number of items with initial [w]. However, the fact that western varieties of Early NP at the same time display a much higher ratio of B- to W- and G-type reflexes, it may be wise to look for the origin of fortition to [b] in the western part of the W Iranian-speaking world.

One feature common to the history of both the western MPer and Early NPer world, and the area of North/Central Kurdistan has been the widespread use of Aramaic (see figure 4) While the phonology of Old Aramaic is not reliably reconstructable, we know both from orthography and from its preservation as the liturgical language of the Syrian Orthodox Church that Middle Aramaic maintained an allophonic alternation between word-initial [b] and post-vocalic [v]/[β]. This is an alternation that could easily have left an imprint on the phonology of pre-modern Kurd and Western Late MPer, especially in cities such as Baghdad and Ahwaz, which have historically been home to large Aramaic-speaking populations. Aramaic is a par-

ticularly attractive candidate for the catalyst of the fortition of initial $*w-$ to [b] in western varieties of W Iranian, given the evidence presented by Chyet (1995) for the long history of linguistic contact and exchange between Kurd- and Aramaic-speaking populations.

Figure 4: approximate distribution of (spoken) Middle Aramaic languages



Much more difficult to explain is the apparent simultaneous development of initial /b/ from Proto-Iranic $*w-$ in Khot. The city of Khotan is never likely to have hosted an Aramaic-speaking population significant enough to impose a such a change, and it is not clear how it would be possible for a sound change in one part of the Iranian-speaking world to jump to the other. This is especially true given that Khot documents displaying initial /b/ appear already in the 4th century CE, much earlier than similar changes should have occurred in NPer. As of now, there is no satisfactory explanation as to this spontaneous shift in Khot.¹⁰

The origins of the G-type reflexes remain a mystery. If we assume a single origin for the feature, it seems reasonable to suggest (on the basis of the findings discussed in sections 3.1 and 3.2) that a [ɣ^w]-like allophone of $*w-$ first appeared as an areal feature in South/Central Iran at a time when the ancestors of Pers, Kurd, and Balo were all still in close proximity to each other. As the Balo moved to their current homeland, they extended the feature to other environments, such that it became the regular reflex for nearly all instances of Proto-Iranic $*w-$. Pers and Kurd, for whatever reason, did not extend the allophone to other positions, leaving other initial $*w-$ to fall prey to the conditions which would later promote their evolution into [b].

¹⁰It should, however, be noted that a number of Sanskrit (or more likely, Prakrit) names in inscriptions in Bact – an otherwise solidly W-type language – appear with a Greek letter β corresponding to the Indic initial /v/. This may be interpreted to mean that there was some variety of Indic which had already undergone a change from initial $v-$ to /b/, and that that Indic variety exerted its influence on Khot, or at least that this change was a feature common to an area which included both local Indic varieties and Khot. At present, there are too few data to say definitively whether this was that case.

Still puzzling in such a scenario is the possible presence of G-type reflexes as the default in Ormu-Para, and potentially also in the Zabul dialect of Pash. While this might have at one point been a feature of contact with some older stage of Balo, these populations do not interact with Balo speakers in any significant way now, nor is there any evidence of their having done so in the recent past. One possibility is that these languages, either in their current positions or in some position further west – were part of the original group of languages to fall under the area in which the change from **w-* to /g/ first began; again, this is largely speculation.

The hodge-podge nature of the reflexes exhibited by Cent Iranian languages such as Yazd seems to confirm the importance of ‘bazaar language’ in their development, as described by [Wladimir Ivanow \(1940\)](#). This phenomenon is characterized by the quasi-*ad hoc* creation of mixed dialects in order to facilitate communication among semi-nomadic people and villagers in Central and Western.

Finally, as stated in section 2.1.3, the grouping of Gora with the B-type languages supports [Leezenberg \(1992\)](#)’s hypothesis of heavy cross-pollination with Sora.

3.4 Implications for the classification of Iranian languages

A number of findings in section 2.1 also have implications for certain hotly debated topics related to the genetic relationship of languages within Iranian.

Zaza’s alignment with the W-type languages of the Casp group strongly supports [Ludwig \(1995\)](#)’s hypothesis proposing a close genetic link between the Zaza-Gora and Casp sub-branchings. It also suggests a remarkable conservativeness in terms of phonology, given its ability to survive so long in an otherwise B-type environment, unlike its sibling Gora.

Perhaps more controversially, the identification of the G-type reflexes as a feature primarily of W Iranian may support the hypothesis of [Оранский, И. М. \(I. M. Oranskij\) \(1979\)](#) that Ormu-Para are ultimately W Iranian and not, in fact, E Iranian as is commonly suggested among European Iranologists, following [Morgenstierne \(1926\)](#). However, it is not certain that this feature might not have been acquired via contact, as suggested in section 3.3 above.

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A Appendix of four-letter language codes

Code	Language(s)
Balo	all varieties of Balochī
Casp	the Caspian subgrouping (i.e., Maza, Gila)
Gila	Gilāki
Gora	Gorāni
Khot	Khotanese Saka
Kurd	the Kurdish subgrouping (i.e., Kurm, Sora)
Kurm	Kurmancî/Kurmanji
Luri	Luri/Lori
Maza	Mazandarāni
MPer	Middle Persian
NPer	New Persian
OPer	Old Persian
Ormu	Ormuri
Pami	the Pamiri subgrouping (i.e. Yagh, Sari, etc.)
Para	Parachi
Parth	Parthian
Pash	all varieties of Pashto
Pers	all varieties of Persian, historical and modern (i.e., OPer, MPer, NPer)
Sari	Sariqoli
Sora	Soranî
Tale	Tāleshi
Yazd	Yazdi, the language of the Zoroastrians of Yazd
Yagh	Yaghnobi
Zaza	Zâzâkî

B Genetic division of Iranian languages

Figure 5: traditional genetic division of Iranian (abbreviated)

