Counting Sheep and Camels in Balochi

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The topic of this paper is the numeric system of Balochi. It will discuss the characteristics which indicate that the numbers have been borrowed from Persian, and will identify a context in which this borrowing may have taken place. This context is likely to be the bazar situation. Evidence for this comes from the Balochi terms for some animals which may have been borrowed from Kurdish, while another animal term might have been borrowed from Balochi into Kurdish. As the numerical system of Kurmanji has likewise been borrowed from Persian, the picture of a multilingual situation of language contact involving at least Persian, Balochi and Kurdish emerges.

I

Numbers are among those elements which are commonly used for historical linguistics and play a major role in the reconstruction of protolanguages. One might thus assume that numbers are likely to constitute an important part of the inherited lexicon. On the other hand, it has long been observed (Hübschmann 1895: 78, Geiger 1901: 216) that the numerical systems of Balochi and Kurmanji have been borrowed from Persian. The first point to be discussed will thus be inhowfar the Bal. numbers may be inherited or borrowed.

The Balochi terms for the numbers are the following:

numbers 1-19[1]		sources[2]	status
1	yak(k)		NP
2	dō	ABG, DTB, GCD; FBB, MGB; EAL	= NP
	du	BMC, EVM, NBA 27; EAL	
3	sai	DTB, GCD; MGB; BMC, EVM, NBA 27; EAL	= NP
	saē	FBB, SHG	
	sē	EAL	
	sah	ABG	
4	čār	all SWBal. sources	= NP
	čyār	DTB, GCD	
5	panč	all sources except	= NP
	panǰ	ABG	NP

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[1] In certain WBal. dialects, *h* is lost in all contexts, for which reason variants like e.g. *apt* "seven", *da* "ten" are always found besides *hapt, dah.*

[2] Abbreviations are listed in the bibliography. In those cases where the sources used here do not differ, no source is cited. The sources are grouped according to the three major dialect groups in the following order: (predominantly) Eastern dialect (EBal.) sources (ABG, DTB, GCD); (predominantly) Southern dialect (SBal.) sources (FBB, MGB, SHG); (predominantly) Western dialect (WBal.) sources (BMC, EVM, NBA); unspecific (EAL). The reason why for some numbers, only a few sources are listed is that the dictionaries and glossaries are very unsystematical in noting numbers. In what follows, Parthian and Zazaki material will be cited for comparison, these being chosen as representatives of Middle and contemporary NW Iranian. Prth. words are cited from Durkin-Meisterernst 2004, Zaz. numerals from Selcan 1998: 586.

6	šaš(š)		= NP
7	hapt	ABG, DTB, GCD; FBB, MGB, SHG; EVM, BMC	= NP
	haft	ABG; FBB; NBA 27	NP
8	hašt		= NP
9	nō nuh nu[3] °nau	FBB; NBA 27 DTB, GCD; MGB, SHG; EAL ABG; BMC; EAL ABG	= MP, NP
10	dah da dā[4]	ABG, DTB, GCD; MGB, SHG BMC, EVM, NBA 27 FBB	NP
	in the compounds 11-19, "ten" has the following (to be understood below):		
	°dah °da °dā °da(g)	ABG, DTB, GCD; MGB, SHG FBB, NBA 27 FBB BMC	
11	yāzdah yānzda yăzdag[5] yāždah	ABG; FBB, MGB, SHG; EVM NBA 27 ABG; BMC DTB, GCD	NP
12	duwāzdah dwāzdah dwānzda dwăzda(g) dwāždah	SHG ABG, DTB; FBB, MGB NBA 27 BMC GCD	NP
13	sēzdah sĕzdah	MGB; NBA 27 DTB, GCD; FBB; BMC	
14	čārdah čārda(g) čyārdah	ABG; FBB, MGB, SHG; BMC, EVM, NBA 27 BMC DTB, GCD	
15	pānzdah păzda	ABG, GCD; MGB; NBA 27 DTB; FBB, SHG; BMC	
16	šānzda šăzdah	ABG, GCD; MGB; NBA 27 DTB; FBB, SHG; BMC	
17	habdah hawdah	ABG; FBB, MGB; BMC DTB, GCD; NBA 27	
18	haždah		
19	nōzdah nõzda(g) nūzd, nūzdah	GCD; MGB; NBA 27 FBB; BMC DTB	
	unīš	ABG	Ur.

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[3] *nu* is written the same way *nuh* is in the other sources, i.e. Arab. <nh>.

[4] Word-final *a* often appears as *-ā*. It seems that the quantity of *-a* tends to be neutralised, thence the variation FBB 26, 30f. °*da* (for all numbers from eleven to nineteen) vs. FBB 87 °*dā*. BMC has °*da(g)*, treating the *-a* like the suffix *-a(g)* < OIr. *-aka-*.

[5] This is the only case besides "seventeen" where ABG has the second member °*dag* which is otherwise only found as a variant in BMC.

numbers 20-90[6]		sources	status
20	bīst	all SWBal. sources	NP
	gīst	ABG, DTB, GCD; SHG; EAL	
30	sī		NP
40	čil(l)	all sources	= NP
	čihil	GCD; MGB	
50	panǰāh		NP
60	šast	all SWBal. sources	= NP
	šašt	MGB	
	sai-gīst	DTB, GCD	cf. sai, gīst
	sah-gīst	ABG	
70	haptād	ABG;[7] MGB; BMC	NP
	aftād	FBB; NBA 27	
	sai-gīst-u-dah	DTB, GCD	cf. sai, gīst, dah
80	haštād	all SWBal. sources	NP
	čyār-gīst	DTB, GCD	cf. čār, gīst
90	nawad	all SWBal. sources besides	NP
	nuwad	MGB	
	čyār-gīst-u-dah	DTB, GCD	cf. čār, gīst, dah

numbers 100-...		status
100[8]	sad	NP
1000	hazār	NP
100,000	lak(k)	Ur.
10,000,000	kurōṛ	Ur.
1,000,000,000	arab	Ur.

The terms may be grouped into the following categories:

1. Borrowings from Ind. languages (marked "Ur." in the "status" column of the tables above):

This involves the terms for hundred thousand, 10 million and one billion.[9] These terms have obviously been borrowed from Urdu (presumably rather recently), maybe also from other Ind. languages spoken in Pakistan as far as these use the same terms. As such numbers are not so much used in everyday life, their being borrowed from a dominant culture is not surprising.[10]

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[6] Numbers like "twenty-one" are compounds made in the same way the NP ones are, e.g. *bīst-u-yak / bīst-ō-yak*, EBal. *gīst-u-yak*. According to Dames 1913:13ff., subtracting methods also occur in EBal., e.g. *sai kʰam yāždah-gīst* "3 less than 11 times 20", i.e. 217 (for the phenomenon of counting by twenties, cf. 0.). According to Dames 1913:13ff., this way of counting extends beyond hundred (which, however, is *saδ* corresponding to the other dialects, and *dōsaδ* is "two hundred"): *šaž-gīst* "hundred and twenty", *hapt-gīst* "hundred and forty", *hašt-gīst* "hundred and sixty", *nuh-gīst* "hundred and eighty", *yāzdah-gīst* "two hundred and forty" etc.

[7] ABG only has *haptād-ō-nau*, glossing it as "sixty-nine" which is obviously an error.

[8] Expressions for 200, 300 etc. are built as compounds from the simple number, e.g. *dō/du-sad* (Barker/Mengal 1969/I:99). NBA 27 has the NP expressions *sisad* (sic, perhaps a misprint for *sīsad*) "three hundred", *pānsad* "five hundred".

[9] Thus FBB and SHG. In BMC, *arab* means 100 millions which is indeed the meaning of Ur. *arab*.

[10] The reason for the appearance of the Ur. numeral "nineteen" in ABG is not clear.

2. Terms which cannot be inherited Balochi words since they show features typical for Persian, but not for Balochi (marked "NP" in the tables above). They may have been borrowed from NP or earlier, as far as MP has the same form as found in NP.

The following numbers belong to this group:

• *dah* "ten" and its compounds (eleven-nineteen[11]) since PIE *$\acute{k}$ results in Bal. *s* (e.g. PIE *$pe\acute{k}u$- > Bal. *pas* "sheep, goat" vs. MP *pah*) so that as a result of PIE *$de\acute{k}m̥$, one would expect Bal. †*das* (cf. Prth. *das*, Zaz. *des*).

• For the same reason, *sī* "thirty" and *panǰāh* "fifty" are loanwords since they contain PIE *$°\acute{k}m̥to$- (Av. *ϑri-sata-*, OP *$\ast ç\bar{\imath}-\vartheta a(n)s$- "thirty" > MP *sīh*[12], *panča-sata-*, OP *$\ast panča-\vartheta a(n)s$- "fifty") and should thus show an -*s*- as well (cf. Prth. *hrist*, *panǰāst*, Zaz. *hırıs*, *poncas*, respectively).

• *bīst* "twenty" shows the NP result of OIr. *u̯ĭ*- while Balochi changes OIr. *u̯ĭ*- to *gĭ*- and OIr. *u̯ai̯*- > *gē*- (Geiger 1891: 419, e.g. NP *bīnī*, MP *wēnīg* "nose" vs. Bal. *gīn* "breath").

• Similarly, *haštād* "eighty", *nawad* "ninety" and *sad* "hundred"[13] show *d* for OIr. *t* (Av. *haptā́ti-*, *aštā́ti-*, *nauuā́ti-*, *sata-*) while voiceless stops are otherwise represented as such in Balochi (e.g. Bal. *gwāt* "wind" vs. NP *bād*, Av. *vāta-*; Bal. *pit* "father" vs. NP *pidar*, Av. *pitar-*). The same applies to *haptād* "seventy"; its *p* vs. *f* in NP *haftād* is due to the fact that the SWBal. phonemic system does not contain fricatives, and *f* in loanwords is replaced by *p* except for learned pronunciation which some (chiefly WBal.) speakers apply to loanwords (cf. Jahani 1989: 81-82), the variant *aftād* shows that speakers may use the word with its NP *f*, the loss of *h* is a WBal. feature (cf. n. 1).

• Since OIr. *$\ast ai̯u̯aka$- "one" results in Bal. *ēwak* (cf. Prth. *ēwag*) "alone", the same protoform cannot give *yak(k)* "one" as well; moreover, there seems to be no inherited word in Balochi with word-initial *y*-; *yak(k)* is thus highly likely to have been borrowed from NP.[14]

3. Terms which may be either Persian borrowings or inherited Balochi words since the sound changes of Persian and Balochi would produce the same results (noted "= NP" above):[15]

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[11] The majority of the numbers eleven - nineteen show secondary nasals at least in some dialects which have been introduced in analogy to (NP) *pānzdah* "fifteen" and *šānzdah* "sixteen". The *ž* in the EBal. words for "eleven" and "twelve" is obviously taken from *haždah* "eighteen". *hawdah* "seventeen" is likely to represent two different phenomena: In the case of Nawata 1981, it can reflect the NP form *habdah* in a pronunciation of *ab* as *aw* which is common in Dari (Dorofeeva 1960: 16), whereas in the EBal. sources, it might show the regular EBal. change of postvocalic -*b* > -*β* applied to SWBal. *habdah*. The variant *ašda* "eighteen" found in FBB in addition to *ažda* might be a hypercorrect introduction of the *š* of *hašt* "eight".

[12] For discussion of *$\ast \vartheta risans$- > MP *sīh* cf. Klingenschmitt 2000: 202.

[13] NP/MP *sad* in turn seems to be a NW Ir. borrowing (i.e. from Parthian or another NWIr. dialect), since from PIE *$\acute{k}m̥tom$, one might expect NP †*had* (cf. OP *ϑata-*), cf. *$de\acute{k}m̥$ (OP *daϑa-*, only attested in Elamic sources) > NP/MP *dah*, cf. I.2 ad *dah*. However, it is possible that word-initial *$\acute{k}$- might give MP/NP *s* (MacKenzie 1967: 19 n. 8). If so, it is not necessary to explain *sad* as a loanword or as due to some exceptional development.

[14] Gemination of (especially word-final) consonants in loanwords is very common in Balochi, but not always noted in the sources, e.g. *hukūmat(t)* "government", *bač(č)*, *bačak(k)* "son", *ṭikaṭ(ṭ)* "ticket". The unusual preservation of -*k* in NP *yak* has been explained as a reflex of *$u̯.$ *$ai̯u̯āka$- > *$\ast ēhák$- > *$\ast ēáhk$ (Klingenschmitt 2000: 213).

[15] In fact, a sizeable portion of the Bal. lexicon is liable to interpretation as either inherited or borrowed from Persian since the sound changes of these rather closely related languages would produce the identical result (Geiger 1891: 444).

- *dō, du* "two" has the same form as in NP. Note that the word is not a case of OIr. *du̯-* ; Prth. *dō* shows that it derives from a (Lindeman) variant with *duu̯-*[16] (as Greek δύο does) since *du̯-* gives *b-* in Parthian (Tedesco 1921: 200), it thus does not say anything about the Bal. result of OIr. *du̯-*.[17]

- PIr. **ϑr* (Av. *ϑr*, OP *ç*) is likely to give *s(s)* in Balochi (Korn 2003a: 51),[18] so it is not possible to decide whether *sai* etc.[19] "three" has been borrowed from NP (as Hübschmann 1895: 78 assumes)[20] or is inherited.

- *šaš* "six" is what one expects in NP as in Balochi (cf. also n. 23).

- *nō, nu, nau*[21] "nine" might be inherited or borrowed as well, but the *-h* in *nuh* speaks for a borrowing of the Bal. word from NP *nuh*[22] since the unetymological *-h* is likely to have been generalised from *dah* "ten" (Bartholomae 1906: 68), which is a Pers. loanword in Balochi (see above).[23]

- The likewise unetymological *h-* of *hašt* "eight" might suggest that the word has been borrowed from NP; but since Parthian shows *hašt* as well, it might also be inherited.

- With regard to Prth. *šašt* "sixty", Bal. *šašt* might be an inherited word and *šast* its dissimilated variant. However, no other example of such a dissimilation has been noted in Balochi, and *šašt* is found in one source only while all others have *šast*. It thus seems better to assume that *šast* is the primary variant and to explain *šašt* by the occasional assimilation (Geiger 1891: 436) *š...s > š...š*; such an assimilation occurs, for instance, in *šušt*, the more common variant of *šust* (past stem of *šōd-* "wash") and EBal. *šašt-* / past stem *šaštāϑ-* vs. *šast-* / past stem *šastāϑ-* "send". Bal. *šast, šašt* is therefore likely to have been borrowed from NP.

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[16] Thus Weber 1994: 111 for MP *dwāzdah*.

[17] For discussion of the Bal. result of OIr. *du̯-* , cf. Korn 2003a: 52. – The variation *dō / du* reflects a parallel variation in the pronunciation of the NP word.

[18] Although Balochi has been qualified as a NWIr. language, it does show some SWIr. features, which points to the Western Ir. languages as a contimuum of dialects rahter than to a dichotomy of NW and SW Iranian (cf. Paul 1998, Korn 2003a).

[19] The variation of the vowel in the Bal. forms might have been motivated by the irregular development of the vowel in the Pers. word (not entirely identical to the Bal. forms): MP *sĕ̆, seh* (cf. n. 23), NP *sih*, CNP *se*. There is an EBal. variant *šai* in two 19th century sources; the reason for its *š* (if not an error) is not clear.

[20] The word for "three" has been borrowed from NP into many Ir. languages (Paul 1998: 166 n. 8).

[21] *nau* is found in ABG in compounds, e.g. *čill-o-nau* "forty-nine". The diphthongisation seen here and in other cases in this source (e.g. *pauz* for *pōz* "nose", *kaupag* for *kōpag* "shoulder"), if not due to some misunderstanding, might be a dialectal phenomenon.

[22] NP has the variants *nuh, nūh*, MPM has <nww>, <nwḥ> /*nōh*/.

[23] Similarly, Bartholomae 1906: 68-69 assumes that the *-h* of MPM *nōh* has been generalised to MPM <sḥ> *seh* "three" and <šwḥ> *šoh* "six"; the existence of the latter goes unnoticed in Rastorgueva/Molčanova 1981: 78 who seem to assume that the only MP form is *šaš* not only in Pahlavi, but also in MPM. For Parthian, one might expect *šaš* (cf. Zaz. *ses*) which might indeed be attested once (cf. Durkin-Meisterernst 2004: 319a). The usual Prth. form is <šwḥ> *šoh* (and <šhwm> (sic) "sixth"), however. According to Emmerick 1992: 299, *šoh* could show the result of a dissimilation, while Rastorgueva/Molčanova 1981a: 200 would explain it as "результат восточноиранской редакции манихейских текстов" ("result of the Eastern Ir. redaction of the Manichæan texts"). An occasional change of postvocalic *š > h* has indeed been noted for Choresmian (Henning 1955: 433) and Bactrian, so *šoh < *xšu̯aš* does look Eastern Iranian (Nicholas Sims-Williams, personal communication). However, no EIr. form of this word with *-h* has been found so far, Choresmian *'x* and perhaps Bactrian *oxo* showing loss of the second *š* and the regular change of *xš > x(x)* (Nicholas Sims-Williams, personal communication), Sogdian has *xwšw* etc. This might imply that even if there was an EIr. dialect with *-š > -h* which did not lose the second *š* in this word, it would not be likely to have had *šoh*, but rather a form with *x-* (e.g. †*(V)x(x)oh*).

- *hazār* derives from PIE *$sm̥g^{h}eslo$- (EWAia II: 719, OInd. *sahásra*-) which may be expected to yield *hazār* as it does in Persian and Parthian.

4. Terms which may have been borrowed from NP while it is not clear whether they may also be explained as inherited:

The terms *čār*[24] "four" and *čil(l)* "forty" may have been borrowed from the identical NP words. It is not clear whether they might also be originally Balochi words: they involve a change of OIr. *ϑu̯ > h* (cf. Av. *čaϑβārō* "four", *čaϑβarᵊsat*- "fourty") usually considered typical for Persian and other South Western Ir. languages (vs. Zaz. *çoṛ*, *çewres*, Prth. *čafār*, *čafrast*)[25] the Bal. result of which is not known: all examples involving the OIr. cluster *ϑu̯* have the same form in Balochi as in Persian and may have been borrowed from NP. There is thus no way to decide whether the regular Bal. outcome would be the same as in Persian (cf. Korn 2003: 68). Since Balochi shows several SWIr. features (cf. Korn 2003a), however, it is possible that OIr. *ϑu̯* gave the same result in Balochi as in Persian.

5. Terms which would seem to be originally Balochi rather than NP:

- *panč*: devoicing of word-final consonants is common in loanwords in Balochi (cf. Korn 2001: 3 n. 19), e.g. *kilīt* "key" from NP *kilīd* (borrowed from Greek), *zyāt* "much" from NP *ziyād* (borrowed from Arabic), *harč*, *harǰ* "costs" from NP *xarǰ*.[26] Bal. *panč* might thus be said to represent NP *panǰ*. Nevertheless, Hübschmann's remark (1890: 560) that *panč* may be the inherited word is correct, and it thus belongs to the cases of group 3.
- *hapt* "seven" might seem to show a typical Bal. *p* for *f* of other Ir. languages; however, this is not conclusive since *f* of loanwords is substituted by *p* by speakers whose phonemic system does not include *f* (cf. *haptād* in group 1), so that *hapt* is likewise another case of group 3.[27]
- *gīst* "twenty" seems to be an inherited word since it shows the typically Bal. change of OIr. *u̯ĭ- > gĭ-* (cf. group 1 ad *bīst*). There are cases where *w-* of a MP or other loanword has been substituted by Bal. *g-*, though,[28] e.g. *gīāb(ān)* "desert" (MP *wiyābān*, NP *biyābān*),[29] *gēš* "more" (MP *wēš*, NP *bēš*, Gershevitch 1964: 87), *gisir-* "get lost" (Sindhi *visiraṇu*).[30]

II

The word for "twenty" discussed in I.5 leads to a noteworthy phenomenon: the counting by twenties seen in Eastern Balochi, which recalls French numbers like *quatre-vingt* "eighty (lit. four [times] twenty)" (EBal. *čyār-gīst*), *quatre-vingt-dix* "ninety (four [times] twenty [and]

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[24] The palatalisation process seen in EBal. *čyār*, if not due to an error in the sources, might be linked to other palatalisation processes exercised by *č*, e.g. *pāčin* vs. NP *pāzan* "goat", *gēčin* "sieve" < *$u̯ai̯čana$-. The same palatalisation might be the cause for a variant *čihār* "four" which is, however, found only in EAL.

[25] For discussion of these Prth. words and of the Prth. and Pers. results of OIr. *ϑu̯*, cf. Sims-Williams 2004 and Korn (fthc.).

[26] According to Henning 1935, this seemingly Arabic word is ultimately derived from MP *har(ā)g* "tax" (for discussion of the vowels, cf. Sundermann 1981: 93) which in turn has been borrowed from Aramaic.

[27] The occurrence of the NP form *haft* in several sources is noteworthy.

[28] It does not seem necessary (pace Morgenstierne 1932: 41, 1937: 347) to assume a substitution of *b-* by Bal. *g-* since all examples may at least equally conveniently be explained differently.

[29] The *y* in MP *wiyābān* vs. Av. *vīuuāp(a)*- "destruction" is explained as a SWIr. feature by Junker 1929: 143-147.

[30] This is the explanation for *gisar* "mistake, forgetting" by Dames 1891: 79.

ten)" (EBal. *čyār-gīst-u-dah*). As no such system of counting has been observed in other Western Iranian languages,[31] nor in other dialects of Balochi, it is likely to have been introduced due to the influence of some neighbouring language(s). While there are several languages in Northern Pakistan which use a vigesimal system (Dardic and Nuristani languages, Burushaski),[32] it is not clear at what time and what place a contact with speakers of these and Baloch may have taken place.

Although it would be possible to explain EBal. *gīst* otherwise (cf. I.5), it seems worthwile considering the possibility that it is the only element which has remained from the original system as it was to some degree safeguarded by its use in the system of counting by twenties which survived the borrowing of the NP numeral system.

The statements by Hübschmann 1895: 78 and Geiger 1901: 216 can thus be confirmed insofar as the main bulk of the Balochi numerals have been borrowed from Persian. The higher numbers come from Urdu. A noteworthy exception is the EBal. word for "twenty" which might be a (the only) rest of the older inherited Balochi numeral system.

III

The situation of numerals being borrowed from some other language might seem striking at first sight. However, it has parallels in a number of other languages. For instance, Persian numbers are used in Turkish for playing *tavla* (backgammon).[33] It is noteworthy that in the context of sheep farming, Ossetic numerals are found in Balqar Turkic (Gippert 1989: 260), Irish ones in Mid- Wales and presumably Welsh ones in some parts of England[34] alongside the respective inherited numerals which are used otherwise. In Japanese, Chinese numerals are used to a large degree, the inherited Japanese ones being preserved only as an incomplete system. In Setswana (Botswana, South Africa), the English numbers are used even by those who otherwise do not speak English, most inherited numbers being entirely forgotten by now.[35] Indeed, "numerals are often borrowed" (Beekes 1995: 212).

A suitable context for such a borrowing is a situation of language contact with one language having the function of standard language and "local" languages serving as substandard varieties. This is certainly the case for English in the South of Africa and Persian in Anatolia in previous centuries. A slightly different situation is that of one language being the dominant one in interregional contact and thus also used by speakers of more "peripheral" languages, specifically for purposes of trade. This is likely to apply to Chinese the numbers of which got borrowed into Japanese. Both conditions may be assumed to apply to Balochi and Kurmanji since Persian has been the dominant language for both languages for most of their history, and Persian influence is noticeable on all levels of Bal. and Kurd. grammar.[36]

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[31] Contemporary NP *devīst* "two hundred" which might be liable to interpretation as *dah* "ten" + *bīst* "twenty", thus as a trace of a vigesimal system, is more likely to derive from **duu̯ē-sata-* "two-hundred" (Horn 1893: 130-131) > **du̯ēst* (cf. the *majhul* vowel in Firdausi **du̯ēst* (Horn 1893: 131 n. 1), MPM, Prth. <dwysd> *dwēsad* "two hundred", MPM <tyryst> *tīrēst* "three hundred").

[32] Georg Buddruss (personal communication). For discussion of the vigesimal system and its possible origins, cf. Ėdel'man 1975. Other Ir. languages which have taken over vigesimal systems include some dialect(s) of Kurdish (Ėdel'man 1975: 31) and Ossetic (cf. Cheung 2002: 98-99 n. 49).

[33] Cf. Lewis 1967: 84.

[34] Stefan Schumacher, personal communication.

[35] I am indebted to Jürgen Schöpf for this information.

[36] For reflexes of this situation in the historical phonology of both languages, cf. Korn 2003a.

IV

As far as trade is concerned, the Baloch are known to have lead a predominantly nomadic life for probably quite a long time, coming to the towns mainly to sell the products of their sheep and goats and to buy what they do not produce themselves. In this context, it is interesting to note that some terms for animals likewise point to a contact with speakers of Persian and Kurdish.

There is some evidence that the following Balochi words are loanwords:

• It is not clear whether *uštir* "camel" can represent the regular Bal. form for "camel" since there is no other example with a consonant cluster PIr. **štr*. One might expect, however, that it would be similar to OP *uša°* (Brandenstein/Mayrhofer 1964: 149) rather than to Av. *uštra-* since PIr. **ϑr* is likely to give the rather SWIr. result *s(s)* in Balochi (cf. 0.3), so the word might have been borrowed (e.g. from MP *uštar*).

• The Bal. outcome of PIr. **ću* might be rather the SWIr. result *s* than NWIr. *sp* (cf. Korn 2003a: 51) which would imply that *asp* "horse" is a loanword. Moreover, the only form found in modern Ir. languages is *asb* etc. (originally the NWIr. form), the SWIr. form being attested exclusively in the compound OP *asa-bara- >* NP *suwār* "mounted (on a horse/bus)". *asb* may thus have got borrowed from NP into other Ir. languages.

• *istal, istir* "mule" (OInd. *aśvatará-*, NP *astar*) might be an inherited word as far as the pertaining sound changes are concerned. However, there is no way to be sure that it was not borrowed from NP. It is noteworthy that there is no universal word for "mule" in the diverse Bal. dialects: while some have *istal,* others use *ġātī* (Turkmenistan, cf. EVM) or *xačar* (Karachi, cf. FBB), which have been borrowed from NP *qāṭir* and Ur. *xaččar,* respectively.[37] This is liable to increase the possibility that *istal* is a loanword as well.

Furthermore, it is noteworthy that all three words also occur in variants with a secondary (unetymological) *h-*:

• *hăps, hāsp* (Pierce 1874 and two occurrences in older manuscripts) vs. *asp, aps* (other sources) "horse";

• *hastal* (DTB, Pierce 1874, Gladstone 1874, EAL) vs. *istal, istil, istir* (other sources) "mule";

• *huštar, huštur* (DTB, Gladstone 1874, Pierce 1874, Yūsefiyān 1992: 100) vs. *uštar, uštir, uštur* (other sources) "camel".

All three words show secondary *h-* in Kurdish: *hesp, hêstir, hêştir*. The addition of unetymological *h-* is extremely common in Kurdish (Socin 1901: 256). Although it does occasionally also occur in Balochi, it seems striking that *h-* is added in all three words for the bigger household animals, all of them showing secondary *h-* in Kurdish. One might thus wonder whether they might have been borrowed from or at least influenced by Kurdish. If so, the variants without *h-* may be explained as borrowed from or influenced by the surely ubiquitous Persian forms.

Conversely, if Kurd. *gîsk* "young goat" goes back to an OIr. word with *u-*,[38] it is likely to be a loanword since OIr. *u-* does not otherwise give Kurd. *g-* (Asatrian/Livshits 1994: 95). A possible source is Bal. *gēs* "female goat of less than one year".

If these assumptions are correct, they hint at interesting implications about the economic history of the Baloch: they would have acquired the use of the bigger animals through contact

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[37] Both NP *qāṭir* and Ur. *xač(č)ar* are from Turkic, the origin of the word is Sogdian *xrtrʾk* (Henning 1946: 723, cf. also Doerfer III: 392).

[38] The etymology suggested by Asatrian/Livshits 1994: involves the problem that it is difficult to bring Bal. *ē*, Kurd. *î* in line with MP *wahīg* "kid" (OInd. *vatsá-* "calf" etc., cf. Bailey 1979: 274a).

with speakers of other NWIr. languages while the use of smaller animals (sheep, goats) is likely to be traditional (note the probably genuine term *pas* which denotes sheep and goats). Indeed, the ecological conditions the Baloch have found themselves in have not favoured the breeding of camels and horses. These would have needed to be bought for the most part, the camels for transportation and prestige purposes while horses have mainly functioned as status symbols (cf. Rzehak 1991: 56-60).

<div align="center">V</div>

The buying of camels, horses and mules as well as of other goods will necessarily have taken place in some bazar environment the population of which is likely not to have been Balochi speaking. It is evident that the use of Persian will in most cases have been involved and that those who have engaged in the trade must have had some (if only limited) command of Persian. Since numbers are crucial for bazar communication, the setting where the Persian numerals may have got borrowed is not hard to identify. It is in fact the same as observed nowadays in the bazar of Quetta (Pakistani Balochistan) where speakers of different mother languages use Pashto since most traders are Afghans and ask a lower price when customers speak Pashto (Titus 2003: 234). The multilingual bazar thus encourages the use of languages other than one's own.

The use of Persian numerals by Baloch is hardly surprising. It may be noted in passing that those who acquired the use of the Persian numerals are highly likely to have been the men in the first place who for trading purposes are likely to have spoken Persian at least to a certain degree.[39] Other languages may likewise have been present in former times as they are nowadays.

It is difficult to be more specific as to where and when exactly the Persian numerals may have got borrowed from Persian into Balochi. It is obvious that the variety they where borrowed from was not contemporary Standard Persian as spoken in Iran, since the CNP change of *ē > ī* and *ō > ū* has not taken place (e.g. *sēzdah*). If the *-č* of *panč* "five" is not due to the borrowing process as such, it might point to a Persian variety which shows devoicing of word-final consonants. This has been noted for stops and *z,* although not for *ǰ,* in Dari (Dorofeeva 1960:17).

If *gīst* is indeed a remainder of the inherited Bal. numeral system the retention of which was safeguarded by the vigesimal system (cf. 0), it would seem that the borrowing must have taken place after that system of counting arose, i.e. after speakers of Balochi had come into contact with a language with the same system of counting. It is not clear, however, which language was the motivating factor. At the same time, the setting requires the presence of Persian as dominating language. This may have been any time before Urdu and other Ind. languages rose to the status of official languages in what is nowadays Pakistan.

In conclusion, one may state the following results: the Balochi and Kurmanji numerals cannot be used for establishing sound-laws and for purposes of historical grammar in general since the numerical systems of these languages have been borrowed from Persian. This borrowing reflects a situation of language contacts and confirms the influence which Persian

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[39] This does not imply that it is only the men who are bilingual. In fact, contrary to what has sometimes been assumed for "peripheral" societies, many Balochi women are likely to have been bi- or multilingual, acquiring several languages through marriage into families speaking another language, through contact with neighbours or with relatives who are married into families where other languages are spoken etc. For some case studies, cf. Archer 2003.

has exercised on these languages as seen in historical phonology. Conversely, Zazaki shows NWIr. features in its numerical system, corresponding to its rather consistent NWIr. character in general (cf. Paul 1998, Korn 2003).

ABBREVIATIONS:

ABG: Ahmad 1985

Av: Avestan

Bal.: Balochi

BMC: glossary in Barker/Mengal 1969/II

CNP. contemporary New Persian of Iran (*fārsī*)

DTB: Dames 1891

EAL: Elfenbein 1990

EBal.: Eastern Balochi dialects

EIr.: Eastern Iranian

EVM: Elfenbein 1963

EWaia: Mayrhofer 1986-96

FBB: Farrell 1990

GCD: Gilbertson 1925

Ind.: Indic

Ir.: Iranian

Kurd.: Kurdish (Kurmanji)

MGB: Mockler 1877

MP: Middle Persian

MPM: Manichæan Middle Persian

NBA: Nawata 1981

NP: New Persian (classical)

NW: North Western

OInd.: Old Indic (Vedic, Sanskrit)

OIr.: Old Iranian

OP: Old Persian

Pers.: Persian

PIE: Proto-Indo-European

PIr.: Proto-Iranian

Prth.: Parthian

SBal.: Southern Balochi dialects

SHG: Sayad Hashmi 2000

SW: South Western

SWBal.: Southern and Western Balochi dialects

Turk.: Turkic

Ur.: Urdu

WBal.: Western Balochi dialects

Zaz.: Zazaki

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