

## Cognations of lexical characters (polymorphism project, 2025).

This is the basic tabulation of lexical cognations that underlies the lexical character coding of Ringe, Warnow, and Taylor 2002, as revised in 2024. The tables on the following pages give the cognate judgments from which the coding of the characters for input to the algorithm was derived, with notes on how the actual coding of each character was derived.

Since we originally tried to extract as much information as possible about the diversification of the family from these data, we were not always satisfied with root-cognations; we also coded for distinctive derivations whenever there is any indication that that might reveal shared history. As a result, many characters were given alternative codings for input to the algorithm in Ringe, Warnow, and Taylor 2002 (as illustrated there with the example 69 ‘hand’). In addition, we kept in mind the requirements of cladistics using character compatibility, e.g. suppressing unique states (which are compatible with any tree).

In this project, however, **we have kept unique states and have coded derivatives separately, without also marking the root cognations of derivatives**, since they need not have replaced the root words directly.

### Lexical characters.

1 all (pl.)

Hitt.	1	Av.	5	Luv.	8/14	Goth.	6
Arm.	2	OCS	12	Lyc.	8/15	ON	6
Gk.	3	Lith.	12	TA	3	OHG	6
Alb.	4	OE	6	OPer.	5a	Welsh	9
TB	3	OI	13	OPru.	12	Osc.	10
Ved.	5	Lat.	7	Latv.	12	Umb.	11
3 *pá̄ntes				6 *olnøy > PGmc.	*allai		
5 *wík-wo- > PIIr.	*víćva-			13 PCelt.	*olyoy		
12 *wi-so- > PBS	*visa-			8 PLuv.	*pūno-		

See Hübschmann 1897:416 on the Armenian word (< \*sm̥-) and Stang 1966:97, 238 on the Balto-Slavic forms.

## 2 and

Hitt.	1	Av.	6	Luv.	1	Goth.	14
Arm.	2	OCS	7	Lyc.	1/18	ON	15
Gk.	3	Lith.	7	TA	11/19	OHG	8
Alb.	4/17	OE	8	OPer.	6	Welsh	6
TB	5	OI	9	OPru.	12	Osc.	16
Ved.	6	Lat.	10	Latv.	13 [loan]	Umb.	10
1 PAnat.	*Ho			8	*h <sub>2</sub> entí 'in front'		
6	*k <sup>w</sup> e			10	*éti 'in addition'		
7	* <sub>g</sub> (particle)						

On the Anatolian forms see Melchert 1992:46 with fn. 13 and references.

The second component of Welsh *a* ~ *ag* is almost certainly PIE \*k<sup>w</sup>e; we are grateful to Joseph Eska for helpful discussion of that form.

## 3 animal

Hitt.	1	Av.	7	Luv.	13	Goth.	10
Arm.	2	OCS	8	Lyc.	14	ON	10
Gk.	3	Lith.	9	TA	5	OHG	10
Alb.	4/21	OE	10	OPer.	15	Welsh	18 [loan]
TB	5	OI	11	OPru.	16/22	Osc.	19
Ved.	6	Lat.	12	Latv.	17	Umb.	20
5 PToch.	*luwo			10 PGmc.	*deuza		

## 4 ashes

Hitt.	1	Av.	6	Luv.	10	Goth.	16
Arm.	2	OCS	7	Lyc.	11	ON	16
Gk.	3	Lith.	15	TA	5/17	OHG	16
Alb.	4	OE	16	OPer.	12	Welsh	8
TB	5/17	OI	8	OPru.	15	Osc.	13
Ved.	1	Lat.	9	Latv.	15	Umb.	14
1	*h <sub>2</sub> eHs-			17	PToch.	*t(u)wëyë	
16	PGmc. *askōn- ~ *azgōn-			15	PBalt.	*pelenaī	
5	PToch. *tawrə			8	PCelt.	*lowtis (*lewh <sub>3</sub> - 'wash')	

## 5 at

Hitt.	1	Av.	7	Luv.	11	Goth.	9
Arm.	2	OCS	8	Lyc.	12	ON	9
Gk.	3	Lith.	8	TA	5	OHG	9/17
Alb.	4/16	OE	9	OPer.	13	Welsh	15
TB	5	OI	10	OPru.	8	Osc.	9
Ved.	6	Lat.	9	Latv.	14	Umb.	9/18
5 PToch.	*-nē	8	*prey ‘before’	9	*ad		

On the Latvian form see Endzelīns 1923:524-6.

## 6 back

Hitt.	1	Av.	6	Luv.	13	Goth.	18
Arm.	2	OCS	7	Lyc.	14	ON	9
Gk.	3	Lith.	8	TA	15	OHG	10
Alb.	4/22	OE	9/10	OPer.	16	Welsh	19
TB	5	OI	11/23	OPru.	17	Osc.	20
Ved.	6	Lat.	12	Latv.	8	Umb.	21
6 PIIr.	*pr̥sthá-			9 PNWGmc.	*bakā		
8 PE Balt.	*nugVrā or *mugVrā			10 PWGmc.	*hrugi, *hrugjgj-		

The polymorphism is confined to Northwest Germanic and is leaf-connected.

## 7 bad

Hitt.	1	Av.	6/21	Luv.	1	Goth.	9
Arm.	2	OCS	7	Lyc.	12	ON	17/24
Gk.	3	Lith.	8	TA	13/22	OHG	9
Alb.	4	OE	9	OPer.	14	Welsh	18
TB	1/20	OI	10	OPru.	15	Osc.	11
Ved.	5	Lat.	11	Latv.	16/23	Umb.	19
1	*édwōl			11 PI tal.	*mal-		
9 PGmc.	*ubilaz (< *h₂upélos, cf. Hitt. <i>huwappas</i> ‘evil’ < *h₂wápos, Watkins 1969:30)						

On the first Tocharian B word see Adams 1999 s.v. *yolo* with references.

## 8 bark

Hitt.	1	Av.	7	Luv.	13	Goth.	19
Arm.	2 [loan]	OCS	8	Lyc.	14	ON	20
Gk.	3	Lith.	9	TA	15	OHG	10
Alb.	4	OE	10	OPer.	16	Welsh	21
TB	5	OI	11	OPru.	17	Osc.	22
Ved.	6	Lat.	12	Latv.	18	Umb.	23

10 PWGmc. \*rindā

## 9 because

Hitt.	1	Av.	5	Luv.	11	Goth.	15
Arm.	1	OCS	6/22/23	Lyc.	12	ON	16
Gk.	2	Lith.	7/24/25	TA	4/26	OHG	17
Alb.	3	OE	8	OPer.	13	Welsh	18/28/29
TB	4/21	OI	9	OPru.	14	Osc.	19
Ved.	5	Lat.	10	Latv.	7/27	Umb.	20

1 \*kʷíd (unextended)

4 compound of \*kʷíd and (an innovative form of) \*to-

5 PIr. \*žhí

7 PEB \*tādēl

On the Armenian form see Clackson 1994:56, 210 fn. 98 with references.

We accept the derivation of Goth. *unte* < \*und þē, pace Feist 1939 s.v.

## 10 belly

Hitt.	1	Av.	6	Luv.	12	Goth.	9
Arm.	2	OCS	7	Lyc.	13	ON	9/19
Gk.	3	Lith.	8	TA	5	OHG	9/20
Alb.	4	OE	9	OPer.	14	Welsh	15/21
TB	5	OI	10	OPru.	18	Osc.	16
Ved.	6	Lat.	11	Latv.	18	Umb.	17

6 PIr. \*udáram

5 PToch. \*kat<sup>s</sup>o

18 PBalt. \*vēderas

9 PGmc. \*wambō

## 11 big

Hitt.	1	Av.	2	Luv.	7	Goth.	14
Arm.	2	OCS	4	Lyc.	8	ON	14/15
Gk.	2	Lith.	5	TA	9	OHG	14
Alb.	2	OE	14	OPer.	10	Welsh	6
TB	3	OI	6	OPru.	11	Osc.	13
Ved.	2	Lat.	2	Latv.	12	Umb.	13

2 \*megh₂-  
14 PGmc. \*mikilaz

6 \*meh₂-ro-

13 These Osco-Umbrian comparatives and superlatives are difficult to judge.

They might reflect \*meh₂-is-, but analogical remodelling of \*mag-is- on full-grade \*mag-yos- (cf. Lat. *maior*, neut. *maius*) is also possible. We have therefore assigned them a separate state.

Note that the Gmc. comparatives and superlatives, which reflect \*meh₂-is- and would therefore be coded 6, have been omitted.

## 12 bird

Hitt.	1	Av.	6	Luv.	11	Goth.	9
Arm.	2	OCS	7	Lyc.	12	ON	9
Gk.	3	Lith.	8	TA	5	OHG	9
Alb.	4	OE	9	OPer.	13	Welsh	10
TB	5	OI	10	OPru.	14	Osc.	15
Ved.	6	Lat.	6	Latv.	7	Umb.	6

5 phrase ‘flying animal’

9 PGmc. \*fuglaz

6 \*h₂éwi- ~ \*h₂wéy-

10 (\*pet-no- >) PCelt. \*etnos

7 PBS \*put-

In Welsh the inherited stem has become the plural, and a singular has been backformed to it.

## 13 bite

Hitt.	1	Av.	3	Luv.	10	Goth.	7
Arm.	2	OCS	6/18	Lyc.	11	ON	7
Gk.	3	Lith.	6	TA	12	OHG	7
Alb.	4	OE	7	OPer.	13	Welsh	15
TB	5	OI	8	OPru.	14	Osc.	16
Ved.	3	Lat.	9	Latv.	6	Umb.	17

3 \*denk-

6 PBS \*kand-

7 PGmc. \*bītidi (< \*b<sup>h</sup>eyd- 'split')

## 14 black

Hitt.	1/15	Av.	7/16	Luv.	1/18	Goth.	9
Arm.	2 [loan]	OCS	6	Lyc.	12	ON	9
Gk.	3	Lith.	8	TA	5	OHG	9
Alb.	4	OE	9/17	OPer.	13	Welsh	10
TB	5	OI	10	OPru.	6	Osc.	14
Ved.	6	Lat.	11	Latv.	3	Umb.	11
1 PAnat.	*d <sub>ng</sub> gwi-			9 PGmc.	*swartaz		
3 *melh <sub>2</sub> -n-				10 PCelt.	*dubus		
5 PToch.	*ērk <sup>w</sup> ēnt-			11 PItal.	*ātros		
6 *k <sub>ṛ</sub> ṣnós							

On the Anatolian forms see Starke 1987:263, fn. 74.

The Armenian form is an Iranian loan, pace Hübschmann 1897:489; see Olsen 1999:906 with references.

The Latvian cognation with Greek is surprising and potentially reflects parallel development.

## 15 blood

Hitt.	1	Av.	4	Luv.	1	Goth.	6
Arm.	1	OCS	5	Lyc.	9	ON	6
Gk.	2	Lith.	14	TA	1	OHG	6
Alb.	3	OE	6	OPer.	10	Welsh	11
TB	1	OI	7	OPru.	14	Osc.	12
Ved.	1	Lat.	8	Latv.	1	Umb.	13
1 *ésh <sub>2</sub> ṛ			6 PGmc. *blōbṛ ~ *blōda-				
14 PBalt.	*krauja-						

Once again the Latvian cognate is surprising.

## 16 blow

Hitt.	1	Av.	6	Luv.	10	Goth.	6
Arm.	2	OCS	6/18	Lyc.	11	ON	14
Gk.	3	Lith.	7	TA	5	OHG	6/14
Alb.	4	OE	6	OPer.	12	Welsh	15
TB	5	OI	8	OPru.	13	Osc.	16
Ved.	6	Lat.	9	Latv.	7	Umb.	17
5	PToch. *piya-			7	PEBalt. *putja		
6	*h₂wéh₁ti			14	PNWGmc. *blāsidi		

## 17 bone

Hitt.	1	Av.	1	Luv.	1	Goth.	10
Arm.	1	OCS	4	Lyc.	8	ON	6
Gk.	1	Lith.	5	TA	3	OHG	6
Alb.	2	OE	6	OPer.	9	Welsh	1
TB	1/3	OI	7	OPru.	5	Osc.	11
Ved.	1	Lat.	1	Latv.	5	Umb.	12
1	*h₂óst ~ *h₂ést-			5	PBalt. *kaulan		
3	PToch. *ayo			6	PNWGmc. *bainq		

On the Tocharian word see now Del Tomba 2023: 137–40.

## 18 breast

Hitt.	1	Av.	2	Luv.	1	Goth.	7
Arm.	2	OCS	5	Lyc.	10	ON	7
Gk.	3	Lith.	6	TA	2	OHG	7
Alb.	4/16	OE	7	OPer.	11	Welsh	13
TB	2	OI	8	OPru.	12	Osc.	14
Ved.	2	Lat.	9	Latv.	6/17	Umb.	15
1	PAnat. *dēdan			6	PEBalt. *krūtis		
2	*pstén-			7	PGmc. *breust- ~ *brust-		

## 19 breathe

Hitt.	1	Av.	5	Luv.	9	Goth.	5
Arm.	2	OCS	6	Lyc.	10	ON	5
Gk.	3	Lith.	7	TA	11	OHG	15
Alb.	4	OE	5/18	OPer.	12	Welsh	5
TB	5	OI	5	OPru.	13	Osc.	16
Ved.	5	Lat.	8	Latv.	14/19	Umb.	17

5 \*h₂énh₁ti and derivs.

## 20 burn

Hitt.	1	Av.	4	Luv.	9	Goth.	6
Arm.	2	OCS	5	Lyc.	10	ON	6
Gk.	3	Lith.	4	TA	4	OHG	6
Alb.	4	OE	6	OPer.	11	Welsh	7
TB	4/15	OI	7	OPru.	12	Osc.	13
Ved.	4	Lat.	8	Latv.	4	Umb.	14

4 \*dʰégʷh₂etor (with various developments of passive voice morphology)

6 PGmc. \*brinnidi

7 PCelt. \*losk-

The most widespread form was originally a passive, apparently supplanting an older intransitive verb \*war- (state 1).

## 21 child

Hitt.	1	Av.	7	Luv.	13	Goth.	10
Arm.	2	OCS	8	Lyc.	14	ON	10
Gk.	3	Lith.	9	TA	5	OHG	18
Alb.	4/22	OE	10/24	OPer.	15	Welsh	19
TB	5	OI	11	OPru.	16	Osc.	20
Ved.	6/23	Lat.	12	Latv.	17 [loan]	Umb.	21

5 PToch. \*śawmo 'person' and deriv. (dimin. in TB)

10 PGmc. \*barn₄

It cannot be demonstrated that Gk. πά(ρ)ις and Lat. *puer* are cognate.

## 22 claw

Hitt.	1	Av.	6	Luv.	8	Goth.	13
Arm.	2	OCS	3	Lyc.	9	ON	7
Gk.	3	Lith.	3	TA	10	OHG	7
Alb.	4	OE	7	OPer.	11	Welsh	14
TB	5	OI	3	OPru.	12	Osc.	15
Ved.	3	Lat.	3	Latv.	3	Umb.	16

3 \*h<sub>3</sub>nog<sup>h</sup>-(u-) with deformations and derivs.

7 PNWGmc. \*klawu

## 23 cloud

Hitt.	2	Av.	5/6/15	Luv.	9	Goth.	14
Arm.	5	OCS	8	Lyc.	10	ON	16
Gk.	1	Lith.	3	TA	11	OHG	20
Alb.	7	OE	20	OPer.	12	Welsh	17 [loan]
TB	11	OI	4	OPru.	13	Osc.	18
Ved.	1/6	Lat.	15	Latv.	3/21	Umb.	19
1	*néb <sup>h</sup> os			11	PToch. *tərkər		
3	PEBalt. *debesis			15	*snewd <sup>h</sup> -		
5	*h <sub>3</sub> emb-			20	PWGmc. *wolkn		
6	*(h <sub>3</sub> )moyg <sup>h</sup> ós						

## 24 cold

Hitt.	1	Av.	7/8	Luv.	12	Goth.	10
Arm.	2	OCS	9	Lyc.	13	ON	10
Gk.	3	Lith.	8	TA	5	OHG	10
Alb.	4	OE	10	OPer.	14	Welsh	17
TB	5	OI	17	OPru.	8	Osc.	15
Ved.	6	Lat.	11	Latv.	7/8	Umb.	16
5	PToch. *k <sup>w</sup> erośce			8	*kolHtos		
7	derivs. of *ow-			10	PGmc. *kaldaz (< *gol-)		
17	PCelt. *ougros						

On the difficulties besetting the Tocharian forms see Hilmarsson 1996:182-3, 194-5.

Note that the Germanic forms are not related to set 8.

## 25 come

Hitt.	1	Av.	6/7	Luv.	1	Goth.	5
Arm.	2	OCS	8/16	Lyc.	11	ON	5
Gk.	3	Lith.	9	TA	5	OHG	5
Alb.	4 [loan]	OE	5	OPer.	6/7	Welsh	14
TB	5	OI	10	OPru.	12	Osc.	15
Ved.	6/7	Lat.	5	Latv.	13	Umb.	5
1	*áw h <sub>1</sub> eyti			6	PIIr. *á aiti		
5	*g <sup>w</sup> em- 'step' (uncompounded)			7	PIIr. *á gasćati		

## 26 count

Hitt.	1	Av.	7	Luv.	13	Goth.	18
Arm.	2	OCS	8	Lyc.	14	ON	11
Gk.	3	Lith.	9	TA	15	OHG	11
Alb.	4	OE	10/11	OPer.	16	Welsh	10
TB	5	OI	10	OPru.	17	Osc.	19
Ved.	6	Lat.	12	Latv.	9	Umb.	20
9	PEBalt. *skait-			11	PNWGmc. *talib <sub>i</sub> (*talja-)		
10	*rīm-						

## 27 cut

Hitt.	1	Av.	6	Luv.	1/17	Goth.	13
Arm.	2	OCS	7/8	Lyc.	10	ON	16/9/13
Gk.	3	Lith.	6/8	TA	5/18	OHG	9
Alb.	4	OE	16/9	OPer.	6	Welsh	14
TB	5/18	OI	7	OPru.	11	Osc.	15
Ved.	6	Lat.	7	Latv.	12	Umb.	7
1	PAnat. *k <sup>w</sup> érti			9	PGmc. *snībidi		
5	PToch. *kərst-n-a(-sə)			13	PGmc. *maitidi		
6	*kert-			16	PGmc. *skiridi (*skera-)		
7	*sek-			18	PToch. *latkəna(sə)		
8	PBS *rēžjeti						

## 28 day (= 24 hrs.)

Hitt.	11	Av.	4	Luv.	7	Goth.	5
Arm.	2	OCS	13	Lyc.	8	ON	5
Gk.	2	Lith.	13	TA	3	OHG	5
Alb.	12	OE	5	OPer.	9	Welsh	10 [loan]
TB	3	OI	6	OPru.	13	Osc.	14
Ved.	1	Lat.	1	Latv.	13	Umb.	14
1	*dyéws			5	PGmc. *dagaz		
2	*ámr			13	*deyn- ~ *din-		
3	PToch. *kawnə			14	POU *dyēklo-		

## 28a day (vs. night)

Hitt.	13	Av.	4	Luv.	7	Goth.	5
Arm.	1	OCS	15	Lyc.	8	ON	5
Gk.	2	Lith.	15	TA	3	OHG	5
Alb.	14	OE	5	OPer.	9	Welsh	1
TB	3	OI	6	OPru.	10	Osc.	11
Ved.	4	Lat.	1	Latv.	15	Umb.	12

NOTE that not all the states of this character represent the same cognate sets as the states of the preceding; state 4, for example, does not.

1	*dyéws	5	PGmc. *dagaz
3	PToch. *kawnə	15	*deyn- ~ *din-
4	PIIr. *áž <sup>h</sup> ar ~ *áž <sup>h</sup> an-		

## 29 die

Hitt.	1	Av.	2	Luv.	8	Goth.	14/15
Arm.	2	OCS	2	Lyc.	8	ON	10
Gk.	3	Lith.	13	TA	8	OHG	6/10
Alb.	4	OE	6/15	OPer.	2	Welsh	2
TB	5	OI	7	OPru.	9	Osc.	11
Ved.	2	Lat.	2	Latv.	13	Umb.	12
2	*mer- (pres. *mṛyétor)	10	PGmc. *dawiþi (*dauja-)				
6	PWGmc. *stirbidi (*sterba-)	13	PEB pres. *miršta				
8	*wel-	15	PGmc. *swiltidi (*swelta-)				

The Old Prussian word is not cognate with set 8, but with Lith. *liáutis* ‘to cease’, *lavónas* ‘corpse’, etc.

## 30 dig

Hitt.	1	Av.	6	Luv.	11	Goth.	9
Arm.	2/17	OCS	7/19	Lyc.	12	ON	9
Gk.	3/18	Lith.	8	TA	5	OHG	9
Alb.	4	OE	9/20	OPer.	6	Welsh	10
TB	5	OI	10	OPru.	13	Osc.	15
Ved.	6	Lat.	1	Latv.	14	Umb.	16/21
1	*b <sup>h</sup> odh₂- ~ *b <sup>h</sup> edh₂-			9	PGmc. *grabidi		
5	PToch. *rəpa-			10	PCelt. *klād- ~ *klad-		
6	PIIr. *kánti						

## 31 dirty

Hitt.	1	Av.	7	Luv.	13	Goth.	19/27
Arm.	2	OCS	8	Lyc.	14	ON	19/28
Gk.	3/23	Lith.	9/25	TA	15 [loan]	OHG	19/29
Alb.	4/24	OE	10/26	OPer.	16	Welsh	20
TB	5	OI	11	OPru.	17	Osc.	21
Ved.	6	Lat.	12	Latv.	18	Umb.	22/30
19	PGmc. *unhrainiz ‘unclean’						

Note that the Tocharian B and Old Irish forms are unrelated; see Adams 1999 s.v. *sal*.

## 32 dog

Hitt.	1	Av.	1	Luv.	1	Goth.	9
Arm.	1	OCS	3	Lyc.	5	ON	9
Gk.	1	Lith.	1	TA	1	OHG	9
Alb.	2 [loan]	OE	9	OPer.	6	Welsh	1
TB	1	OI	1	OPru.	1	Osc.	7
Ved.	1	Lat.	4	Latv.	1	Umb.	8
1	*ḱwō			9	PGmc. *hundaz		

The Latin word is not related; cf. Welsh *ceneu* ‘puppy’, pl. *canawon*.

On the evidence for the Hittite word see Melchert 1989.

## 33 drink

Hitt.	1	Av.	4	Luv.	1	Goth.	6
Arm.	2	OCS	3	Lyc.	7	ON	6
Gk.	3	Lith.	5	TA	1	OHG	6
Alb.	3	OE	6	OPer.	8	Welsh	3
TB	1	OI	3	OPru.	3	Osc.	3
Ved.	3	Lat.	3	Latv.	5	Umb.	9
	1 *éh₂gʷʰti			5 PEBalt.	*gerja		
	3 *peh₃- ~ *pī- (pres. *píbeti)			6 PGmc.	*drinkidi		

On the Anatolian and Tocharian forms see Kim 2000; though considerable analogical remodelling must be posited to explain the shape of the Tocharian verb, the two do appear to be related.

## 34 dry

Hitt.	1	Av.	16	Luv.	10	Goth.	12
Arm.	2/17/18	OCS	6	Lyc.	11	ON	12
Gk.	3	Lith.	6	TA	5	OHG	7/12
Alb.	4	OE	7	OPer.	16	Welsh	13 [loan]
TB	5	OI	8	OPru.	6	Osc.	14
Ved.	16	Lat.	9	Latv.	6	Umb.	15
	5 PToch.	*asarë		12 PGmc.	*þursu- ~ *þurzu-		
	6 *sawsos			16 PIIr.	*suškas		
	7 PWGmc.	*drūg- ~ *drug-					

## 35 dull

Hitt.	1	Av.	7	Luv.	13	Goth.	19
Arm.	2	OCS	8	Lyc.	14	ON	20
Gk.	3	Lith.	9/24	TA	15	OHG	20
Alb.	4	OE	10	OPer.	16	Welsh	21
TB	5	OI	11	OPru.	17	Osc.	22
Ved.	6	Lat.	12	Latv.	18/25	Umb.	23
	20 PNWGmc.	*slewaz					

36 dust

It seems prudent to code the Old English and Old Norse states separately, for the following reasons. The long vowel of OE *dūst* is guaranteed by Middle English spellings (the short *u* of northern *dusst* (in the *Orrmulum*) and the modern word can reflect borrowing from Norse); thus the OE word should reflect PWGmc. \**dunst*. ON *dust* reflects a pre-form without \*-n-, and since the \*-n- must be part of the root, the two words exhibit different root-shapes. Both shapes reappear elsewhere in West Germanic (in a range of meanings including ‘fine meal, dust,’ and the like); moreover, OHG *dunst* apparently reflects a form with \**b*-, so that further interaction between roots must be reckoned with. See now Lloyd et al. 1998 s.v. *dunst*.

37 ear

Hitt.	1	Av.	5	Luv.	1	Goth.	10
Arm.	2	OCS	2	Lyc.	6	ON	10
Gk.	2	Lith.	2	TA	3	OHG	10
Alb.	2	OE	10	OPer.	5	Welsh	9
TB	3	OI	9	OPru.	2	Osc.	7
Ved.	4	Lat.	2	Latv.	2	Umb.	8

1 \*stómñ ~ \*stmén- ('ear' ?)

2 \*h2éwsos

3 PToch. \*klëwt<sup>s</sup><sub>0</sub>

5 Plr. \*gaušah

9 PCelt. \*klowstā

10 PGmc. \*ausōn- ~ \*auzōn-

## 38 earth

Hitt.	1	Av.	1	Luv.	1	Goth.	4
Arm.	2	OCS	11	Lyc.	7	ON	4
Gk.	3	Lith.	11	TA	1	OHG	4
Alb.	1	OE	4	OPer.	8	Welsh	9
TB	1	OI	5	OPru.	11	Osc.	6
Ved.	1	Lat.	6	Latv.	11	Umb.	10
1	*d <sup>h</sup> é <sup>g</sup> hōm, *g <sup>h</sup> m-, loc.	*d <sup>h</sup> g <sup>h</sup> ém	6	PItal.	*tersā		
4	PGmc.	*erþō	11	PBS	*žemjā		

## 39 eat

Hitt.	1	Av.	4	Luv.	1	Goth.	1/11
Arm.	1	OCS	1	Lyc.	7	ON	1
Gk.	1	Lith.	5	TA	3	OHG	1
Alb.	2	OE	1	OPer.	8	Welsh	9
TB	3	OI	6	OPru.	1/5	Osc.	1
Ved.	1	Lat.	1	Latv.	1	Umb.	10
1	*h <sub>1</sub> édsti		5	PBalt.	*valgā		
3	PToch.	*šuwa(šə)					

## 40 egg

Hitt.	1	Av.	7	Luv.	10	Goth.	16
Arm.	2	OCS	3	Lyc.	11	ON	3
Gk.	3	Lith.	8	TA	12	OHG	3
Alb.	4	OE	3	OPer.	13	Welsh	3
TB	5	OI	9	OPru.	14	Osc.	17
Ved.	6	Lat.	3	Latv.	15	Umb.	18
3	*(h <sub>2</sub> )ōwióm						

On the Welsh and Irish forms cf. Lewis and Pedersen 1961:14, 29.

## 41 eye

Hitt.	1	Av.	4	Luv.	1	Goth.	9
Arm.	2	OCS	2	Lyc.	1	ON	9
Gk.	2	Lith.	2	TA	2	OHG	9
Alb.	3	OE	9	OPer.	4	Welsh	5
TB	2	OI	8	OPru.	2	Osc.	6
Ved.	2	Lat.	2	Latv.	2	Umb.	7
1 PAnat.	*sóg <sup>w</sup> o-			4 PIR.	*čašma		
2 *h₂ók <sup>w</sup>				9 PGmc.	*augōn-		

## 42 fall

Hitt.	1	Av.	2	Luv.	11	Goth.	16
Arm.	6	OCS	4	Lyc.	12	ON	5
Gk.	2	Lith.	8	TA	3	OHG	5
Alb.	7	OE	5	OPer.	13	Welsh	17/18
TB	3	OI	9	OPru.	14	Osc.	19
Ved.	4	Lat.	10	Latv.	15	Umb.	20
2 *pet(h₂)-	‘fly’			4 *ped-	‘fall’		
3 PToch.	*klow <sup>y</sup> otər			5 PNWGmc.	*fallidi		

Though the Baltic words resemble one another, they do not appear to be cognate.

## 43 far

Hitt.	1	Av.	17	Luv.	8	Goth.	15
Arm.	2	OCS	5	Lyc.	9	ON	15/19
Gk.	14/18	Lith.	6	TA	4	OHG	15
Alb.	3 [loan]	OE	15	OPer.	17	Welsh	11
TB	4	OI	7	OPru.	10	Osc.	12
Ved.	17	Lat.	16	Latv.	6	Umb.	13
4 PToch.	*law, *lawkë			15 PGmc.	*ferr-		
6 PE Balt.	*tāl-			17	*duh₂ró-		

Attic Greek πόρρω also ‘further’, reflects πόρσω < πρόσω (attested in other dialects), a derivative of πρός ‘towards’ < \*próti, whose connection with other words is remote. Armenian ր should reflect \*rs (or \*rn?; see Olsen 1999:435), yet in Germanic we find neither \*rs nor \*rz (nor \*rn) but a puzzling \*rr. We have therefore coded all those states separately.

## 44 fat

Hitt.	1	Av.	6/19	Luv.	11	Goth.	14
Arm.	2 [loan]	OCS	7	Lyc.	12	ON	8
Gk.	3	Lith.	7/20	TA	5	OHG	15
Alb.	4 [loan]	OE	8	OPer.	13	Welsh	16/23
TB	5	OI	9 [loan]	OPru.	7/21/22	Osc.	17
Ved.	6/18	Lat.	10	Latv.	7	Umb.	10
5 PToch.	*šəlyp <sup>y</sup> ē			8 PNWGmc.	*smerwa		
6 PIIr.	*pīvas			10 PItal.	*adep-		
7 PBS	*taukas						

On the Celtic words see Pedersen 1909:22-4.

## 45 father

Hitt.	1	Av.	2	Luv.	4	Goth.	1
Arm.	2	OCS	1	Lyc.	4	ON	2
Gk.	2	Lith.	3	TA	2	OHG	2
Alb.	1	OE	2	OPer.	2	Welsh	5
TB	2	OI	2	OPru.	3	Osc.	2
Ved.	2	Lat.	2	Latv.	3	Umb.	2
1	*áttā ‘dad’			3	PBalt. *tēvas		
2	*ph <sub>2</sub> tēr			4	PAnat. *dáda ‘dad’		

## 46 fear

Hitt.	1	Av.	5	Luv.	8	Goth.	6/21
Arm.	2	OCS	16	Lyc.	9	ON	11
Gk.	2/19	Lith.	17	TA	4	OHG	6
Alb.	3/20	OE	6	OPer.	10	Welsh	12
TB	4	OI	21	OPru.	17	Osc.	13
Ved.	5	Lat.	7	Latv.	18	Umb.	14
2	*dwey-			6	derivs. of PGmc. *furhtaz ‘fearful’		
4	PToch. *praska- ~ *pərska-			17	PBalt. *bijā		
5	PIIr. perf. *b <sup>h</sup> eb <sup>h</sup> óy(H)e			21	perf. *h <sub>2</sub> eh <sub>2</sub> óg <sup>h</sup> e ‘be upset’		

## 47 feather

Hitt.	1	Av.	21	Luv.	8	Goth.	14
Arm.	2	OCS	3	Lyc.	9	ON	6
Gk.	19	Lith.	5	TA	10	OHG	6
Alb.	4 [loan]	OE	6	OPer.	11	Welsh	15 [loan]
TB	20	OI	7	OPru.	12	Osc.	16
Ved.	21	Lat.	18	Latv.	13	Umb.	17
6 PNWGmc. *feþru				PIIr. 21 *parnám			

## 48 few

Hitt.	1	Av.	7	Luv.	12	Goth.	10
Arm.	2	OCS	8	Lyc.	13	ON	10
Gk.	3	Lith.	9	TA	14	OHG	10/20
Alb.	4 [loan]	OE	10	OPer.	7	Welsh	16
TB	5	OI	11	OPru.	15	Osc.	17
Ved.	6	Lat.	19	Latv.	9	Umb.	18
7 PIR. *kamna-				10 PGmc. *fawai < *paw-o-			
9 PEbalt. *mažai							

The *-h-* of OHG dat. pl. *fōh-* is probably only graphic (pace Braune and Reiffenstein 2004: 225); the word is not a perfect cognate of Latin *pauc-*.

## 49 fight

Hitt.	1	Av.	6/7	Luv.	13	Goth.	10
Arm.	2 [loan] /22	OCS	7/8	Lyc.	14	ON	8/10
Gk.	3	Lith.	9/23	TA	15	OHG	11
Alb.	4	OE	10/11	OPer.	16	Welsh	19
TB	5	OI	10	OPru.	17	Osc.	20
Ved.	6	Lat.	12	Latv.	18	Umb.	21
6 PIIr. *yúd <sup>h</sup> yati				10 *wikéti			
7 derivs. of *per- 'beat'				11 PWGmc. *fihtidi (*fehta-)			
8 *b <sup>h</sup> orH- 'beat'							

The present stems of state 8 do not match perfectly; see Rix et al. 2001 s.v. \*b<sup>h</sup>erH- for discussion.

## 50 fire

Hitt.	1	Av.	4	Luv.	1	Goth.	1
Arm.	1	OCS	3	Lyc.	6	ON	7
Gk.	1	Lith.	3	TA	1	OHG	1
Alb.	2	OE	1	OPer.	4	Welsh	5
TB	1	OI	5/9	OPru.	1	Osc.	8
Ved.	3	Lat.	3	Latv.	3	Umb.	1
1 *péh₂wṛ				4 PIR. *ātr-			
3 *Vgnís ‘fire-god’				5 PCelt. *tenet-			

## 51 fish

Hitt.	1	Av.	5	Luv.	8	Goth.	7
Arm.	2	OCS	6	Lyc.	9	ON	7
Gk.	2	Lith.	2	TA	10	OHG	7
Alb.	3 [loan]	OE	7	OPer.	11	Welsh	12 [loan]
TB	4	OI	15	OPru.	2	Osc.	13
Ved.	5	Lat.	16	Latv.	2	Umb.	14
2 *dʰǵʰúHs				7 PGmc. *fiskaz			
5 PIR. *mátsyas							

Since the Old Irish and Latin words are not perfect cognates of the Germanic word, we have coded them separately; it seems likely that word-borrowing is involved.

## 52 five

Hitt.	1	Av.	2	Luv.	3	Goth.	6
Arm.	2	OCS	2	Lyc.	4	ON	6
Gk.	2	Lith.	2	TA	2	OHG	6
Alb.	2	OE	6	OPer.	5	Welsh	2
TB	2	OI	2	OPru.	2	Osc.	2
Ved.	2	Lat.	2	Latv.	2	Umb.	2
2 *pénkʷe				6 PGmc. *fimf with unexpected *-f			

## 53 float

Hitt.	1	Av.	3	Luv.	8	Goth.	13
Arm.	2	OCS	2	Lyc.	9	ON	5
Gk.	2	Lith.	4/5	TA	10	OHG	5/14
Alb.	2	OE	5	OPer.	11	Welsh	6
TB	2	OI	6	OPru.	12	Osc.	15
Ved.	2	Lat.	7	Latv.	5	Umb.	16
2 *plew-			6 *sneh <sub>2</sub> -				
5 *plewd-							

## 54 flow

Hitt.	1	Av.	6/7	Luv.	1	Goth.	17
Arm.	2	OCS	8	Lyc.	12	ON	16/17
Gk.	3	Lith.	8	TA	13	OHG	16/17
Alb.	4	OE	9	OPer.	14	Welsh	18
TB	5	OI	10	OPru.	15	Osc.	19
Ved.	3/6	Lat.	11	Latv.	8/16	Umb.	20
1 *érsti			8 *ték <sup>w</sup> ti ‘run’				
3 *sréweti			16 *plewd-				
6 PIr. *g <sup>h</sup> žáratí			17 PGmc. *rinnidi				

## 55 flower

Hitt.	1	Av.	7	Luv.	14	Goth.	20
Arm.	2	OCS	8	Lyc.	15	ON	10/20
Gk.	3	Lith.	9	TA	5	OHG	20
Alb.	4	OE	10	OPer.	16	Welsh	11
TB	5	OI	11/12	OPru.	17	Osc.	13
Ved.	6	Lat.	13	Latv.	18/19	Umb.	21
5 PToch. *pyapyo			13 PItal. *flōs				
10 PNWGmc. *blōstm-			20 PGmc. *blōman-				
11 PCelt. *blāto-							

The derivatives of “western IE” \*b<sup>h</sup>leh<sub>3</sub>- have been coded separately.

## 56 fly (vb.)

Hitt.	1	Av.	1/4	Luv.	9	Goth.	14
Arm.	2	OCS	5	Lyc.	10	ON	7
Gk.	1	Lith.	6	TA	4	OHG	7
Alb.	3	OE	7	OPer.	11	Welsh	1
TB	4	OI	4	OPru.	12	Osc.	15
Ved.	1	Lat.	8	Latv.	13	Umb.	16
1 *pet(h <sub>2</sub> )-				7 PNWGmc.	*fliugidi		
4 *plew- 'float'							

## 57 fog

Hitt.	1	Av.	7	Luv.	11	Goth.	16
Arm.	2	OCS	3	Lyc.	12	ON	17
Gk.	3	Lith.	3	TA	13	OHG	10
Alb.	4	OE	8	OPer.	14	Welsh	18 [loan]
TB	5	OI	9	OPru.	15	Osc.	19
Ved.	6	Lat.	10	Latv.	3	Umb.	20
3 *(h <sub>3</sub> )mig <sup>h</sup> le <sub>2</sub>				10 *neb <sup>h</sup> eleh <sub>2</sub>			

## 58 foot

Hitt.	1	Av.	1	Luv.	1	Goth.	1
Arm.	1	OCS	3	Lyc.	1	ON	1
Gk.	1	Lith.	4	TA	1	OHG	1
Alb.	2	OE	1	OPer.	1	Welsh	5
TB	1	OI	5	OPru.	3	Osc.	1
Ved.	1	Lat.	1	Latv.	4	Umb.	1
1 *póds ~ *pód- ~ *ped-				4 PE Balt.	*kājā		
3 PBS *nagā				5 PCelt.	*traget-		

## 59 four

Hitt.	1	Av.	2	Luv.	1	Goth.	5
Arm.	2	OCS	2	Lyc.	3	ON	5
Gk.	2	Lith.	2	TA	2	OHG	5
Alb.	2	OE	5	OPer.	4	Welsh	2
TB	2	OI	2	OPru.	2	Osc.	2
Ved.	2	Lat.	2	Latv.	2	Umb.	2
1 PAnat.	*māeu-	2	*kʷetwóres, fem.	*kʷétesres, neut.	*kʷetwōr		
5 PGmc.	*fedwōr	with unexpected	*f-				

## 60 freeze

Hitt.	1	Av.	7	Luv.	13	Goth.	10
Arm.	2/21	OCS	8	Lyc.	14	ON	10
Gk.	3	Lith.	9/22	TA	15	OHG	10
Alb.	4	OE	10	OPer.	16	Welsh	10
TB	5	OI	11	OPru.	17	Osc.	18/19
Ved.	6	Lat.	12	Latv.	9	Umb.	20
9 PEBalt.	*šal-		10	*prews-	‘burn’		

## 61 fruit

Hitt.	1	Av.	7	Luv.	13	Goth.	19
Arm.	2	OCS	8 [loan]	Lyc.	14	ON	20
Gk.	3/24	Lith.	9	TA	15 [loan]	OHG	10
Alb.	4 [loan]	OE	10	OPer.	16	Welsh	21 [loan]
TB	5	OI	11	OPru.	17	Osc.	22
Ved.	6	Lat.	12	Latv.	18	Umb.	23
10 PWGmc.	*obat						

## 62 full

Hitt.	1	Av.	6	Luv.	7	Goth.	6
Arm.	2	OCS	6	Lyc.	8	ON	6
Gk.	3	Lith.	6	TA	5	OHG	6
Alb.	4	OE	6	OPer.	9	Welsh	6
TB	5	OI	6	OPru.	6	Osc.	10
Ved.	6	Lat.	11	Latv.	6	Umb.	11
5 PToch.	*wýitē	6	*pl̥h₁nós	(→ 11	*pl̥enos by lexical analogy)		

On the Tocharian words see Adams 1999 s.v. *ite* with references.

63 give

Hitt.	6	Av.	7	Luv.	6	Goth.	4
Arm.	2	OCS	8	Lyc.	6	ON	4
Gk.	7	Lith.	8	TA	1	OHG	4
Alb.	3	OE	4	OPer.	7	Welsh	9
TB	1	OI	5	OPru.	8	Osc.	7
Ved.	7	Lat.	7	Latv.	8	Umb.	7
1 *ay-				7 pres. *dédeh <sub>3</sub> ti and developments of same			
4 PGmc. *gibidi (*geba-)				8 PBS pres. *dōd-			
6 PAnat. *p-ay-							

64 good

Hitt.	1	Av.	6	Luv.	6	Goth.	9
Arm.	2	OCS	7	Lyc.	12	ON	9
Gk.	3	Lith.	8	TA	5	OHG	9
Alb.	4	OE	9	OPer.	6/17	Welsh	14
TB	5	OI	10	OPru.	13	Osc.	15
Ved.	6	Lat.	11	Latv.	13	Umb.	16
5 PToch. *krënt-				9 PGmc. *gōdaz			
6 *wéesus ~ *wésu-				13 PBalt. *labas			

65 grass

Hitt.	1	Av.	7	Luv.	13	Goth.	17
Arm.	2	OCS	8	Lyc.	14	ON	10
Gk.	3	Lith.	9	TA	5	OHG	10
Alb.	4	OE	10	OPer.	15	Welsh	1
TB	5	OI	11	OPru.	16	Osc.	18
Ved.	6	Lat.	12	Latv.	9	Umb.	19
1 *wel-				9 PEBalt. *žālē			
5 PToch. *atiya-				10 PGmc. *grasą ‘plant’			

## 66 green

Hitt.	1	Av.	6	Luv.	1	Goth.	13
Arm.	2	OCS	3	Lyc.	10	ON	7
Gk.	3	Lith.	17	TA	11 [loan]	OHG	7
Alb.	4 [loan]	OE	7	OPer.	12	Welsh	14
TB	5	OI	8	OPru.	17	Osc.	15
Ved.	3	Lat.	9	Latv.	17	Umb.	16
1 PAnat.	*HaH <sub>2</sub> went-			3 derivs. of	*g <sup>h</sup> elh <sub>3</sub> -		
7 PNWGmc.	*grōniz			17 PBalt.	*žaljas		

## 67 guts

Hitt.	1	Av.	5	Luv.	10	Goth.	16
Arm.	2/20	OCS	6	Lyc.	11	ON	8/15
Gk.	2	Lith.	7	TA	12	OHG	8
Alb.	3	OE	8/21	OPer.	13	Welsh	17
TB	4	OI	9	OPru.	14	Osc.	18
Ved.	2	Lat.	2	Latv.	15	Umb.	19
2 derivs. of	*en-tero- ‘inside’			15	*g <sup>h</sup> orneh <sub>2</sub>		
8 PGmc.	*parmaz						

## 68 hair

Hitt.	1	Av.	7	Luv.	11	Goth.	17/21
Arm.	2	OCS	7	Lyc.	12	ON	9/17
Gk.	3	Lith.	8	TA	13	OHG	9/22
Alb.	4	OE	9	OPer.	14	Welsh	20/23
TB	5	OI	20	OPru.	15	Osc.	18
Ved.	6	Lat.	10	Latv.	16	Umb.	19
7	*wolḱos			17	PGmc. *skuft <sub>q</sub>		
9	PNWGmc. *hārā			20	PCelt. *woltos		

Note that there is no connection between the Tocharian B and Latvian words, nor between Armenian *her* and the superficially similar Germanic word.

## 69 hand

Hitt.	1	Av.	6	Luv.	1	Goth.	3
Arm.	1	OCS	2	Lyc.	1	ON	3
Gk.	1	Lith.	2	TA	1	OHG	3
Alb.	1	OE	3	OPer.	6	Welsh	4
TB	1	OI	4	OPru.	2	Osc.	5
Ved.	6	Lat.	5	Latv.	2	Umb.	5
1	*ǵhésōr			4	PCelt. *lāmā		
2	PBS *rankā			5	PItal. *man-		
3	PGmc. *handuz			6	PIIr. *z <sup>h</sup> ástas		

## 70 he

Hitt.	1	Av.	4	Luv.	1/7	Goth.	1
Arm.	2	OCS	1/5	Lyc.	1/7	ON	6
Gk.	3	Lith.	1	TA	4	OHG	1
Alb.	4	OE	6	OPer.	4	Welsh	4
TB	4	OI	1	OPru.	4/5	Osc.	1
Ved.	4	Lat.	1	Latv.	8	Umb.	1
1	*éy, fem. *íh <sub>2</sub> , neut. *íd, adj. *ós etc. and derivs.						
4	*só, fem. *séh <sub>2</sub> , neut. *tód ‘that’ and derivs.						
5	*eno- ~ *ono- ‘that’						
6	*kéy, adj. *kós, etc. ‘this’ and derivs.						
7	PAnat. *obós ‘that’						

## 71 head

Hitt.	1	Av.	6	Luv.	11	Goth.	8
Arm.	2	OCS	7	Lyc.	12	ON	8
Gk.	3	Lith.	7	TA	13	OHG	8
Alb.	4	OE	8	OPer.	14	Welsh	9
TB	5	OI	9	OPru.	7	Osc.	15
Ved.	6	Lat.	10	Latv.	7	Umb.	16
6	PIIr. *c <sup>h</sup> éHas < *k <sup>h</sup> éh <sub>2</sub> -			8	PGmc. *haubid <sub>q</sub>		
7	PBS *galvā			9	PCelt. *k <sup>w</sup> ennas		

## 72 hear

Hitt.	1	Av.	2	Luv.	1	Goth.	3
Arm.	2	OCS	12	Lyc.	7	ON	3
Gk.	3	Lith.	5	TA	11	OHG	3
Alb.	4	OE	3	OPer.	8	Welsh	2
TB	11	OI	2	OPru.	5	Osc.	9
Ved.	2	Lat.	6	Latv.	5	Umb.	10
						5	PBalt. *girdi 'hear'
						11	PToch. *klyews-
						3	*h₂k-h₂ows-ié-ti 'be sharp-eared'

## 73 heart

Hitt.	1	Av.	9	Luv.	1	Goth.	10
Arm.	1	OCS	1	Lyc.	4	ON	10
Gk.	1	Lith.	1	TA	3	OHG	10
Alb.	2	OE	10	OPer.	5	Welsh	6
TB	3	OI	1	OPru.	1	Osc.	7
Ved.	9	Lat.	1	Latv.	1	Umb.	8
	1 *kér, *kṛd- and derivs.			9	PIIr. *zhṛd-		
	3	PToch. *arəñce		10	PGmc. *hertōn-		

## 74 heavy

Hitt.	1/2	Av.	4	Luv.	1/11	Goth.	4
Arm.	3	OCS	7	Lyc.	12	ON	9/16
Gk.	4	Lith.	8	TA	6	OHG	1/9
Alb.	5	OE	1/9	OPer.	13	Welsh	10
TB	6	OI	10	OPru.	14	Osc.	17
Ved.	4	Lat.	4	Latv.	15	Umb.	18
	1 *sworu- ~ *swēru-			9	PNWGmc. *hafigaz, *hafugaz		
	4 *gʷréh₂u- ~ *gʷṛh₂éw-			10	PCelt. *trummos		
	6	PToch. *kʷramərtsë					

## 75 here

Hitt.	1	Av.	7	Luv.	1	Goth.	1
Arm.	1	OCS	1	Lyc.	2	ON	1
Gk.	3	Lith.	6	TA	6	OHG	1
Alb.	6	OE	1	OPer.	7	Welsh	8
TB	6	OI	6	OPru.	6	Osc.	9
Ved.	7	Lat.	4	Latv.	6	Umb.	10
1 derivs. of *ke- ~ *ki- ~ *ko- 'this'				7 *id <sup>h</sup> é(y)			
6 derivs. of *só- ~ *tó- 'that'							

## 76 hit

Hitt.	1	Av.	6	Luv.	12	Goth.	11/21/22
Arm.	2	OCS	7	Lyc.	12	ON	11/20/23/24
Gk.	3	Lith.	8/9	TA	5	OHG	11
Alb.	4	OE	11/18	OPer.	6	Welsh	15
TB	5	OI	10/19	OPru.	13	Osc.	16
Ved.	6	Lat.	20	Latv.	14	Umb.	17
5 PToch. *kərnəsk-				12 PLuv. *tūbīdi			
6 *g <sup>wh</sup> énti				20 *b <sup>h</sup> er-			
11 PG *slahidi							

Note that there is no connection between the Proto-Luvian form and Gk. τύπτει; see Melchert 1994:242.

## 77 hold

Hitt.	1	Av.	8	Luv.	11	Goth.	16
Arm.	2	OCS	10	Lyc.	12	ON	15
Gk.	3	Lith.	13	TA	17	OHG	16
Alb.	4	OE	15	OPer.	8	Welsh	7
TB	6	OI	9	OPru.	13	Osc.	5
Ved.	8	Lat.	18	Latv.	14	Umb.	18
8 PIIr. *d <sup>h</sup> ārāyati				15 PGmc. *haldidi 'keep'			
13 PBalt. *laikā				18 PGmc. *habaiþi			

## 78 horn

Hitt.	1	Av.	14	Luv.	16	Goth.	11
Arm.	2	OCS	4	Lyc.	6	ON	11
Gk.	12	Lith.	4	TA	2	OHG	11
Alb.	3	OE	11	OPer.	7	Welsh	8 [loan]
TB	2	OI	5	OPru.	4	Osc.	9
Ved.	13	Lat.	15	Latv.	4	Umb.	10
2 *g <sup>h</sup> réwṛ				11 PGmc.	*hurna		
4 PBS *ragas							

On the complex history of \*ker- ‘head-bone’ see Nussbaum 1986.

## 79 how

Hitt.	1	Av.	2	Luv.	4	Goth.	2
Arm.	2	OCS	2	Lyc.	5	ON	2/11
Gk.	2	Lith.	2	TA	6	OHG	2
Alb.	2/10	OE	2	OPer.	7	Welsh	2
TB	3	OI	2	OPru.	2	Osc.	8
Ved.	2	Lat.	2	Latv.	2	Umb.	9

2 derivs. of the interrogative stem \*k<sup>w</sup>e- ~ \*k<sup>w</sup>i- ~ \*k<sup>w</sup>o-

See Olsen 1999:806 with references on the first part of the Armenian compound.

It is not clear to us that Tocharian B *mäkte* contains any reflex of the interrogative stem (pace Adams 1999 s.v.), though the parallel of *mäksu* ‘which?’, transparently a compound of *su* ‘that’, makes it clear that it does contain a reflex of the demonstrative.

## 80 hunt

Hitt.	1	Av.	7	Luv.	13	Goth.	17
Arm.	2	OCS	8	Lyc.	14	ON	18
Gk.	3/22	Lith.	9	TA	15	OHG	18/23
Alb.	4	OE	10	OPer.	16	Welsh	19
TB	5	OI	11	OPru.	9	Osc.	20
Ved.	6	Lat.	12	Latv.	9	Umb.	21
9 derivs. of PBalt.	*medjan ‘woods’			18 PNWGmc.	*waip-		

## 81 husband

Hitt.	1	Av.	4	Luv.	7	Goth.	9
Arm.	2	OCS	5	Lyc.	7	ON	11
Gk.	2	Lith.	11	TA	4	OHG	5
Alb.	3	OE	11	OPer.	8	Welsh	11
TB	4	OI	11	OPru.	11	Osc.	10
Ved.	4/13	Lat.	6	Latv.	11	Umb.	12
	2 *h₂nér ‘man’			7 PLuv.	*zīdis ‘man’		
	4 *pótis			11	*wih₁rós ‘young man’		
	5 derivs. of *manu- ‘person’						

## 82 I

Hitt.	1	Av.	1	Luv.	2	Goth.	1
Arm.	1	OCS	1	Lyc.	2	ON	1
Gk.	1	Lith.	1	TA	4	OHG	1
Alb.	3	OE	1	OPer.	1	Welsh	2
TB	4	OI	2	OPru.	1	Osc.	1
Ved.	1	Lat.	1	Latv.	1	Umb.	6
	1 nom. *égh₂ ‘I’			4	Toch. forms with <i>n</i> -, <i>ñ</i> -		
	2 acc. *emé (cf. Melchert 1994:74-5), enclitic *me ‘me’						

On the Albanian nominative see Demiraj 1997:400 with references. We have cautiously coded the Tocharian forms separately; see Jasanoff 1989 for an explanation which is workable but still somewhat speculative.

## 82a me

Hitt.	2	Av.	2	Luv.	2	Goth.	3
Arm.	2	OCS	1	Lyc.	2	ON	3
Gk.	2	Lith.	1	TA	4	OHG	3
Alb.	2	OE	6 [dat.]	OPer.	2	Welsh	2
TB	4	OI	2	OPru.	1	Osc.	5
Ved.	2	Lat.	2	Latv.	1	Umb.	2

1 extended stem \*me-n-

2 acc. \*emé (cf. Melchert 1994:74-5), enclitic \*me ‘me’

3 emphatic \*mége 4 Toch. forms with *n*-, *ñ*-

The accusative form current in the late West Saxon dialect of Old English is the inherited dative; other dialects of Old English preserve the inherited Germanic accusative 3.

Note that the final *-g* of the Hittite accusative cannot reflect the emphatic particle \*-ge (which would have become “-gi”).

## 83 ice

Hitt.	1	Av.	7	Luv.	10	Goth.	14
Arm.	2	OCS	8	Lyc.	11	ON	7
Gk.	3	Lith.	8	TA	12	OHG	7
Alb.	4	OE	7	OPer.	13	Welsh	1/15
TB	5	OI	1	OPru.	8	Osc.	16
Ved.	6	Lat.	9	Latv.	8	Umb.	17
	1 *yeg-		7 *eys-		8 PBS *ledus		

On the Avestan form see Bartholomae 1979 s.v. *aēxa-*.

## 84 if

Hitt.	1	Av.	6	Luv.	8	Goth.	14
Arm.	2	OCS	7/18	Lyc.	10	ON	11
Gk.	3	Lith.	13	TA	5	OHG	11
Alb.	4/16	OE	14	OPer.	6	Welsh	12/19
TB	5/17	OI	8	OPru.	15	Osc.	9
Ved.	6	Lat.	9	Latv.	6	Umb.	9
	5 derivs. of interrogative *k <sup>w</sup> i-		9 PItal. *swai				
	6 relative nt. sg. *Hyód(i)		11 PGmc. *ib-				
	8 *mā-		14 PGmc. *jab-				

Note that the Welsh word is etymologically a form of the verb ‘be’, not a derivative of the interrogative (Evans 1964:242-3).

Since the demonstrative \*i- and the relative \*Hyó- have been largely confused in Balto-Slavic, there is some question whether the Baltic forms (especially the Old Prussian form) should be coded 6 or 11. Otherwise the parallel development seems to be confined to Germanic and to involve interchange between the parallel stems \*jab- and \*ib-.

## 85 in

Hitt.	7	Av.	4	Luv.	7	Goth.	1
Arm.	1	OCS	1	Lyc.	7	ON	1
Gk.	1	Lith.	1	TA	2	OHG	1
Alb.	1	OE	1	OPer.	5	Welsh	1
TB	2	OI	1	OPru.	1	Osc.	1
Ved.	3	Lat.	1	Latv.	6	Umb.	1
1 *en		2 PToch.	*-në	7 *éndom			

## 86 kill

Hitt.	1	Av.	1	Luv.	11	Goth.	8/14/20
Arm.	2	OCS	6	Lyc.	12	ON	14/21
Gk.	3	Lith.	7/18	TA	5	OHG	8/14
Alb.	4	OE	8	OPer.	1	Welsh	15
TB	5	OI	9	OPru.	13	Osc.	16
Ved.	1	Lat.	10	Latv.	13/19	Umb.	17

1 \*gwhénti

13 PBalt. \*galin-

5 PToch. \*kawṣə(ṣə)

14 PGmc. \*daudīþi

8 PGmc. \*slahidi

## 87 knee

Hitt.	1	Av.	1	Luv.	3	Goth.	10
Arm.	1	OCS	2	Lyc.	4	ON	10
Gk.	1	Lith.	9	TA	1	OHG	10
Alb.	1	OE	10	OPer.	5	Welsh	11
TB	1	OI	11	OPru.	6	Osc.	7
Ved.	1	Lat.	1	Latv.	9	Umb.	8
1 *gónu ~ (loc.)	*génu ~ *gnéw-	10 PGmc.	*knewā				
9 PEbalt.	*keljas	11 PCelt.	*glūn- < *gnūn-				

We accept the usual derivation of the Albanian form from \*glun- < \*gnun- (cf. dialectal *gjū*, *glu*, Demiraj 1997:190) and the usual judgment that this and the similar Celtic development were independent.

## 88 know

Hitt.	1	Av.	2/5	Luv.	7	Goth.	2
Arm.	2	OCS	2/5	Lyc.	8	ON	2
Gk.	2	Lith.	5/12	TA	4/5	OHG	2
Alb.	3	OE	2	OPer.	5	Welsh	2
TB	4/11	OI	2	OPru.	2	Osc.	9
Ved.	2	Lat.	6	Latv.	5	Umb.	10
2 perf. *wóyde and derivs.				5 *ǵneh <sub>3</sub> - 'recognize, know (by sight)'			
4 PToch. *k̑ersna(šə)							

## 89 lake

Hitt.	1	Av.	6	Luv.	11	Goth.	8/9
Arm.	2/18	OCS	7	Lyc.	12	ON	14
Gk.	3	Lith.	7	TA	3	OHG	9
Alb.	4	OE	8/9	OPer.	13	Welsh	15
TB	3	OI	10	OPru.	7	Osc.	16
Ved.	5/19	Lat.	10	Latv.	7	Umb.	17
3 *léymon- ~ *limn-` (loc. *limén)				9 PGmc. *saiwiz			
7 PBS *ežeran				10 PIC *lóku ~ *l̥kéw-			
8 *móri 'sea'							

## 90 laugh

Hitt.	1	Av.	6	Luv.	12	Goth.	9
Arm.	2	OCS	7	Lyc.	13	ON	9
Gk.	2	Lith.	8	TA	4	OHG	9
Alb.	3	OE	9	OPer.	14	Welsh	16
TB	4	OI	10	OPru.	15	Osc.	17
Ved.	5	Lat.	11	Latv.	7	Umb.	18
2 *ǵelh <sub>2</sub> -				7 derivs. of *smey- 'smile'			
4 PToch. *k̑ér-				9 PGmc. *hlahidi (*hlahja-)			

## 91 leaf

Hitt.	1	Av.	7	Luv.	12	Goth.	10
Arm.	2	OCS	8	Lyc.	13	ON	10/16
Gk.	3	Lith.	9	TA	5	OHG	10/16
Alb.	4	OE	10	OPer.	14	Welsh	11
TB	5	OI	11	OPru.	15	Osc.	17
Ved.	6	Lat.	3	Latv.	9	Umb.	18
3	*b <sup>h</sup> ólyom (?)			10	PGmc. *laubaz		
5	PToch. *p <sup>y</sup> əlta			11	PCelt. *dolin-		
9	PEBalt. *lap-			16	PNWGmc. *blad <sup>q</sup>		

According to the judgment we have preferred, Gk. φύλλον is cognate with Lat. *folium* but has undergone lexical analogy with φυτόν ‘plant’. However, it is also possible that the Greek word is isolated, and that Lat. *folium* reflects \*d<sup>h</sup>ol- and is thus cognate with the Celtic words.

## 92 left(-hand)

Hitt.	1	Av.	6	Luv.	11	Goth.	16
Arm.	2/19	OCS	6	Lyc.	12	ON	8
Gk.	3	Lith.	7	TA	5	OHG	8
Alb.	4/20	OE	8	OPer.	13	Welsh	17/21
TB	5	OI	9	OPru.	14	Osc.	18
Ved.	6	Lat.	10	Latv.	15	Umb.	18
5	PToch. *ś(uw)āl(i)y- (?)			8	PNWGmc. *winistrasz		
6	*sewyós			18	POU *nertro- (orig. ‘lower’)		

On the Tocharian forms see Pinault 2002:248-61.

## 93 leg

Hitt.	1	Av.	7	Luv.	12	Goth.	17
Arm.	2	OCS	8	Lyc.	13	ON	18/22
Gk.	3	Lith.	9	TA	14	OHG	19
Alb.	4	OE	10	OPer.	15	Welsh	11
TB	5	OI	11	OPru.	16	Osc.	20
Ved.	6	Lat.	2	Latv.	9	Umb.	21
2	*krūs-			11	PCelt. *kokṣā (cf. Lat. <i>coxa</i> ‘hip’, etc.)		
9	PEBalt. *kājā						

## 94 lie

Hitt.	1	Av.	1	Luv.	1	Goth.	4
Arm.	2	OCS	4	Lyc.	1	ON	4
Gk.	1	Lith.	5	TA	4	OHG	4
Alb.	3	OE	4	OPer.	7	Welsh	9
TB	4	OI	4	OPru.	8	Osc.	10
Ved.	1	Lat.	6	Latv.	5	Umb.	11
1	*kéyor			5	PEBalt. *guli		
4	*lég <sup>h</sup> yetor	‘lie down [eventive]’					

Parallel development: extension of eventive \*leg<sup>h</sup>- to include also the stative meaning (originally indicated by \*key-).

## 95 live

Hitt.	1	Av.	9	Luv.	5	Goth.	4
Arm.	2	OCS	9	Lyc.	6	ON	4
Gk.	9	Lith.	10	TA	9	OHG	4
Alb.	3/12	OE	4	OPer.	9	Welsh	11
TB	9	OI	11	OPru.	9	Osc.	7
Ved.	9	Lat.	9	Latv.	9	Umb.	8
4	PGmc. *libaiþi			11	phrase with PCelt. *biwos ‘alive’		
9	pres. *g <sup>w</sup> ih <sub>3</sub> weti						

## 96 liver

Hitt.	1	Av.	2	Luv.	9	Goth.	13
Arm.	16	OCS	5	Lyc.	10	ON	7
Gk.	2	Lith.	6	TA	11	OHG	7
Alb.	3	OE	7	OPer.	12	Welsh	8
TB	4	OI	8	OPru.	2	Osc.	14
Ved.	2	Lat.	2	Latv.	2	Umb.	15
2	*Hyék <sup>w</sup> ṛ ~ *Hyék <sup>w</sup> n-	7	PNWGmc. *libaru	8	PCelt. *ow-		

The reconstruction of a complete protoform for the Celtic words remains problematic; see Pedersen 1909:61, 313.

## 97 long

Hitt.	1	Av.	6	Luv.	9	Goth.	7
Arm.	2	OCS	6	Lyc.	10	ON	7
Gk.	3	Lith.	15	TA	5	OHG	7
Alb.	4	OE	7	OPer.	6	Welsh	12/13
TB	5	OI	8	OPru.	15	Osc.	14
Ved.	6	Lat.	7	Latv.	11	Umb.	16
5 PToch.	*pərkṛē (< *b <sup>h</sup> ṛg <sup>h</sup> ṛós ‘tall’)			7 *long <sup>h</sup> os			
6 *d <sup>h</sup> l <sub>1</sub> g <sup>h</sup> ós				15 PBalt.	*ilgas (unexpected loss of *d-)		

On the Hittite word see Melchert 1994:67; there is some connection with state 6, but the root-shape is clearly different.

We reject the traditional connection of Persian *dræng* with the western words (state 7) and thus do not reconstruct \*dl- for the latter; it seems much more likely that the shape of the Persian word is an independent development (from a cognate of set 6).

## 98 louse

Hitt.	1	Av.	7	Luv.	13	Goth.	18
Arm.	2	OCS	8	Lyc.	14	ON	10
Gk.	3	Lith.	9	TA	15	OHG	10
Alb.	4	OE	10	OPer.	16	Welsh	10
TB	5	OI	11	OPru.	17	Osc.	19
Ved.	6	Lat.	12	Latv.	9	Umb.	20
9 PEBalt.	*ut-			10 *lúHs			

## 99 man

Hitt.	1	Av.	2/5	Luv.	7	Goth.	5/12
Arm.	2	OCS	6	Lyc.	8	ON	6/13
Gk.	2	Lith.	5	TA	4/11	OHG	6
Alb.	3	OE	5	OPer.	2	Welsh	5
TB	4	OI	5	OPru.	5	Osc.	9
Ved.	2	Lat.	5	Latv.	5	Umb.	10
2 *h <sub>2</sub> nér				5 *wih <sub>1</sub> rós ‘young man’			
4 PToch.	*ěnkwē			6 *manu- ‘person’			

## 100 many

Hitt.	1	Av.	3	Luv.	9	Goth.	3/6
Arm.	2 [loan]	OCS	6	Lyc.	10	ON	6
Gk.	3	Lith.	7	TA	1	OHG	3/6
Alb.	4	OE	3/6	OPer.	3	Welsh	12
TB	1	OI	3	OPru.	11	Osc.	13
Ved.	5	Lat.	8	Latv.	7	Umb.	14
	1 *megh₂- 'big'			6 *mVnogʰo-			
	3 *pélh₁u- ~ *plh₁éw-			7 PEBalt. *daug-			

Arm. *bazowmk<sup>h</sup>* can only be an Iranian loan; if it were cognate with the Vedic word, its first syllable would end in a nasal.

The polymorphism involves the last common ancestor of Balto-Slavic and Germanic but is leaf-connected (in Germanic).

## 101 meat

Hitt.	1	Av.	4	Luv.	8	Goth.	2
Arm.	2	OCS	2	Lyc.	9	ON	13
Gk.	3	Lith.	2	TA	10	OHG	5
Alb.	2	OE	5	OPer.	11	Welsh	14
TB	2	OI	6	OPru.	2	Osc.	15
Ved.	2	Lat.	7	Latv.	12	Umb.	16
	2 *méms ~ *méms-			5 PWGmc. *flaiski			

On the preform of state 2 see Ringe 1996:70-1.

## 102 moon

Hitt.	1	Av.	5	Luv.	1	Goth.	12
Arm.	2	OCS	10/5	Lyc.	1	ON	7
Gk.	3	Lith.	5	TA	5	OHG	12
Alb.	4	OE	12	OPer.	5	Welsh	11/13
TB	5	OI	6	OPru.	5	Osc.	8
Ved.	5	Lat.	10	Latv.	5	Umb.	9
	1 PAnat. *ormos			10 *lowksneh₂ 'luminary'			
	5 *mēh₁n̥s			12 PGmc. *mēnan-			

Note that an exact cognate of state 10 appears in Old Prussian in the meaning 'star', which virtually forces the inference that specialization to 'moon' occurred independently in Latin and Slavic.

## 103 mother

Hitt.	1	Av.	2	Luv.	1	Goth.	4
Arm.	2	OCS	2	Lyc.	1	ON	2
Gk.	2	Lith.	2	TA	2	OHG	2
Alb.	3	OE	2	OPer.	2	Welsh	5
TB	2	OI	2	OPru.	2	Osc.	2
Ved.	2	Lat.	2	Latv.	2	Umb.	2

1 PAnat. \*annos

2 \*meh₂téř

The Albanian and Welsh forms are “nursery words” and should not be assigned the same state.

## 104 mountain

Hitt.	1	Av.	6	Luv.	11	Goth.	15
Arm.	2	OCS	19	Lyc.	12	ON	16
Gk.	3	Lith.	7	TA	5	OHG	8
Alb.	4	OE	8	OPer.	13	Welsh	20
TB	5	OI	9	OPru.	14	Osc.	17
Ved.	6	Lat.	10	Latv.	7	Umb.	18

5 PToch. \*swy̑elē

7 PEBalt. \*kālnas

6 PIIr. \*grís

8 PWGmc. \*berg

## 105 mouth

Hitt.	1	Av.	1	Luv.	1	Goth.	8
Arm.	2	OCS	6	Lyc.	10	ON	8
Gk.	3	Lith.	7	TA	5	OHG	8
Alb.	4	OE	8	OPer.	11	Welsh	9/13
TB	5	OI	9	OPru.	6	Osc.	14
Ved.	1	Lat.	1	Latv.	12	Umb.	15

1 \*h₁éh₃s ~ \*h₁h₃és-

8 PGmc. \*munþaz

5 PToch. \*koyñ

9 PCelt. \*genus (← &lt; \*ǵénus ‘jaw’)

6 PBS \*austo-

On the Hittite cognate see Melchert 1994:115-6. We reject the connection between states 1 and 6 that has traditionally been posited.

On the Tocharian forms see now Hilmarsson 1996:171-2.

Though Arm. *beran* and Lith. *burnà* could share a root, its original meaning was clearly not ‘mouth’, and the derivations of the two words are wholly different (cf. Olsen 1999:

297); they have therefore been assigned unique states.

106 name

Hitt.	3	Av.	1	Luv.	4	Goth.	1
Arm.	1	OCS	1	Lyc.	4	ON	1
Gk.	1	Lith.	2	TA	1	OHG	1
Alb.	1	OE	1	OPer.	1	Welsh	1
TB	1	OI	1	OPru.	1	Osc.	1
Ved.	1	Lat.	1	Latv.	2	Umb.	1
1 *h <sub>1</sub> néh <sub>3</sub> mŋ ~ *h <sub>1</sub> néh <sub>3</sub> mn-				2 PEBalt. *vārdas			
4 PLuv. *adaman-							

107 narrow

Hitt.	1	Av.	6	Luv.	9	Goth.	2/14
Arm.	2/17	OCS	2	Lyc.	10	ON	2/14
Gk.	3	Lith.	7	TA	11	OHG	2
Alb.	4 [loan]	OE	2/18	OPer.	12	Welsh	2/8
TB	5	OI	2/8	OPru.	13	Osc.	15
Ved.	2	Lat.	2	Latv.	7	Umb.	16
2 *h <sub>2</sub> én̄ḡhus and derivs.				8 PCelt. *koilos			
7 PEBalt. *sjauras				14 derivs. of PGmc. *þrinhana <sub>2</sub> ‘squeeze’			

108 near

Hitt.	1	Av.	7	Luv.	13	Goth.	10
Arm.	2/20	OCS	8	Lyc.	14	ON	10
Gk.	3/21	Lith.	9	TA	15	OHG	10
Alb.	4	OE	10	OPer.	7	Welsh	18 [loan?]
TB	5/22/23	OI	11	OPru.	16	Osc.	19
Ved.	6	Lat.	12	Latv.	17	Umb.	19
7 PIr. *asnai				19 POU (superlative) *nessīmo-			
10 PGmc. *nēh <sup>w</sup> a-							

On the Celtic words see Pedersen 1909:161.

## 109 neck

Hitt.	1	Av.	6/7	Luv.	12	Goth.	10
Arm.	2	OCS	8/19	Lyc.	13	ON	10/20
Gk.	3	Lith.	9	TA	14	OHG	10
Alb.	4	OE	10	OPer.	15	Welsh	7/21
TB	5	OI	11	OPru.	16	Osc.	17
Ved.	6	Lat.	10	Latv.	9	Umb.	18
6 PIIR. *grīvā				9 PEBA. *kaklas			
7 *mon-				10 *kóllos			

## 110 new

Hitt.	1	Av.	1	Luv.	1	Goth.	10
Arm.	1x	OCS	1	Lyc.	4	ON	10
Gk.	2	Lith.	10	TA	1	OHG	10
Alb.	3	OE	10	OPer.	5	Welsh	10
TB	1	OI	10	OPru.	1	Osc.	7
Ved.	1/10	Lat.	1	Latv.	6	Umb.	8
1 *némwos				10 *némwios			

## 111 night

Hitt.	1	Av.	1	Luv.	6	Goth.	3
Arm.	2	OCS	3	Lyc.	7	ON	3
Gk.	3	Lith.	3	TA	4	OHG	3
Alb.	3	OE	3	OPer.	1	Welsh	3
TB	4	OI	5	OPru.	3	Osc.	8
Ved.	1/3	Lat.	3	Latv.	3	Umb.	9
1 *kʷsep-				4 PToch. *w̥yəšeye			
3 *nókʷts ~ *nékʷt-							

Like the preceding character, this appears to be a case of very extensive polymorphism leaf-connected at Vedic, a language attested very early. But in this case there is evidence that parallel development has occurred: the Hittite cognate of state 3, *nekuz* (*mēhur*), means ‘evening (time)’, and Tocharian offers related adverbs meaning ‘in the evening’ or ‘at night’ (TB *nekciye*, TA *nakcu*, etc.; see Adams 1999 s.v. *nekciye* with references). It is therefore plausible to suggest that state 3 began to replace state 1 in Nuclear IE and eventually did so, largely independently, in every daughter except Indo-Iranian.

## 112 nose

Hitt.	1	Av.	6	Luv.	8	Goth.	11
Arm.	2	OCS	6	Lyc.	9	ON	6
Gk.	3	Lith.	6	TA	5	OHG	6
Alb.	4	OE	6	OPer.	6	Welsh	12
TB	5	OI	7	OPru.	6	Osc.	13
Ved.	6	Lat.	6	Latv.	10	Umb.	14
5 PToch. *mēlē-				6 *nās- ~ *nas-			

## 113 not

Hitt.	1	Av.	1	Luv.	1	Goth.	1
Arm.	2	OCS	1	Lyc.	1	ON	4
Gk.	2	Lith.	1	TA	3	OHG	1
Alb.	1	OE	1	OPer.	1	Welsh	1
TB	3	OI	1	OPru.	1	Osc.	1
Ved.	1	Lat.	1	Latv.	1	Umb.	1

1 \*né and extensions

3 PToch. \*ma

2 \*h₂óyu ‘life’

On the Greek and Armenian forms see Cowgill 1960.

## 114 old

Hitt.	1	Av.	2	Luv.	8	Goth.	12
Arm.	2	OCS	6	Lyc.	9	ON	12
Gk.	3	Lith.	2	TA	5	OHG	7/12
Alb.	4 [loan]	OE	7	OPer.	10	Welsh	2
TB	5	OI	2	OPru.	11	Osc.	13
Ved.	2	Lat.	6	Latv.	6	Umb.	14
2 *sénos				7 PWGmc. *ald			
5 PToch. *k(ə)t <sup>s</sup> ait <sup>s</sup> t <sup>s</sup> ē				12 PGmc. *fирн- ~ *furn- (*furnuz?)			
6 *wet-us- ‘year-old’							

The distribution of states 2 and 6 is incompatible with any likely tree—note that even Lithuanian and Latvian are separated—and the fact that the latter is derived from ‘year’ strongly argues parallel development.

115 one

Hitt.	2	Av.	10	Luv.	5	Goth.	1
Arm.	2	OCS	3	Lyc.	6	ON	1
Gk.	2	Lith.	4	TA	2	OHG	1
Alb.	2	OE	1	OPer.	10	Welsh	1
TB	2	OI	1	OPru.	1	Osc.	7
Ved.	9	Lat.	1	Latv.	4	Umb.	8
1	*óynos			4	PEBalt.	*vienas	
2	*sem-, fem. obl.	*svéh₂-		10	*óywos		

There are fairly strong indications that the original meaning of state 1 and 10 was not the numeral ‘one’; for instance, the Greek cognate of 1c, *oīoç*, means ‘alone’, while that of 1d, *oīvñ*, means ‘one-spot (on dice)’, and the Latin adverb ‘once’ is *semel*—arguably “stranded” derivationally when the numeral from which it was derived was replaced by \**oinos* > *ūnus*. We have therefore coded states 1a–d separately. On the Hittite form see Ringe 2024: 70 with references.

We have not coded the Slavic and East Baltic forms as substates of 1 because they do not fit the set by regular sound correspondences; we believe that the origin of those forms remains very unclear.

116 other

Hitt.	1	Av.	4	Luv.	7	Goth.	10
Arm.	2	OCS	5/11	Lyc.	8	ON	10
Gk.	2	Lith.	6	TA	2	OHG	10
Alb.	3	OE	10	OPer.	4	Welsh	2
TB	2	OI	2	OPru.	6	Osc.	2
Ved.	4	Lat.	2	Latv.	6	Umb.	9
2 *ályos				6 PBalt.	*kitas		
4 PIIr.	*Vnyás			10 PGmc.	*anberaz (< *án-teros)		

117 person

Hitt.	1	Av.	7	Luv.	11	Goth.	6
Arm.	2	OCS	8	Lyc.	12	ON	6
Gk.	3	Lith.	9	TA	13	OHG	6
Alb.	4	OE	6	OPer.	7	Welsh	10
TB	5	OI	10	OPru.	9	Osc.	9
Ved.	6	Lat.	9	Latv.	14 [loan]	Umb.	9

6 *manu-	9 n-stem derivs. of *d <sup>h</sup> é <sup>g</sup> hōm ‘earth’
7 PIr. *mrtyás ‘mortal’	10 PICelt. *donios

## 118 pierce

Hitt. 1	Av. 7	Luv. 12	Goth. 15
Arm. 2/21	OCS 8	Lyc. 13	ON 16
Gk. 3	Lith. 9/24/25	TA 5	OHG 17
Alb. 4/22	OE 10	OPer. 14	Welsh 18
TB 5	OI 11	OPru. 8	Osc. 19
Ved. 6/23	Lat. 8/26	Latv. 9	Umb. 20
5 PToch. *t <sup>s</sup> opə(šə)		9 PEBalt. *durja	
8 *b <sup>h</sup> od <sup>h</sup> h <sub>2</sub> - ‘dig’			

## 119 play

Hitt. 1/25	Av. 7	Luv. 13	Goth. 19
Arm. 2	OCS 8	Lyc. 14	ON 20
Gk. 3	Lith. 9	TA 15	OHG 21
Alb. 4	OE 10	OPer. 16	Welsh 22
TB 5	OI 11/26	OPru. 17	Osc. 23
Ved. 6	Lat. 12	Latv. 18 [loan] / 27	Umb. 24

(No cognates.)

## 120 pull

Hitt. 1	Av. 6	Luv. 12	Goth. 17
Arm. 2 [loan] / 21	OCS 7	Lyc. 13	ON 9/22
Gk. 3	Lith. 8	TA 14	OHG 10/17
Alb. 4	OE 9/10	OPer. 15	Welsh 18 [loan]
TB 3	OI 11	OPru. 16	Osc. 19
Ved. 5	Lat. 9	Latv. 7	Umb. 20
3 *selk-		10 *dewk- ‘lead’	
7 *h <sub>2</sub> welk-		17 PGmc. *þinsidi	
9 *d <sup>h</sup> rag <sup>h</sup> -			

It is possible that the Albanian form reflects some sort of conflation of states 3 and 7 (cf. Demiraj 1997:48), but it cannot reflect either one directly.

The Arm. term is an Iranian loan; cf. Hübschmann 1899:47.

## 121 push

Hitt.	1	Av.	6	Luv.	12	Goth.	9
Arm.	2	OCS	7	Lyc.	13	ON	9
Gk.	3	Lith.	8	TA	5	OHG	9
Alb.	4	OE	9	OPer.	14	Welsh	16
TB	5	OI	10	OPru.	15	Osc.	17
Ved.	5/19	Lat.	11	Latv.	8	Umb.	18

5 \*newd-

9 PGmc. \*skeubidi

8 PEBalt. \*stumja

On the unexpected \*ū in the ON and OE cognates of set 9 see Ringe and Taylor 2014:

40.

## 122 rain

Hitt.	1	Av.	5	Luv.	11	Goth.	8
Arm.	2	OCS	6	Lyc.	12	ON	8
Gk.	3	Lith.	7	TA	18	OHG	8
Alb.	3	OE	8	OPer.	13	Welsh	15
TB	18	OI	9/19	OPru.	14	Osc.	16
Ved.	4	Lat.	10	Latv.	7	Umb.	17

3 derivs. of \*suh₂-

8 PGmc. \*regnā

7 PEBalt. \*lietus

18 PToch. \*suwēs-

## 123 red

Hitt.	1	Av.	12	Luv.	6	Goth.	14
Arm.	2 [loan]	OCS	5	Lyc.	7	ON	14
Gk.	3	Lith.	13	TA	3	OHG	14
Alb.	4	OE	14	OPer.	8	Welsh	14/16
TB	3	OI	14/15	OPru.	9	Osc.	11
Ved.	12	Lat.	3	Latv.	10	Umb.	3/14

3 \*h₁rudʰrós

12 PIIr. \*ráudʰitas

14 \*h₁rowdʰos

States 5 and 9 are apparently independent derivatives of words for ‘worm’.

## 124 right(-hand)

Hitt.	1	Av.	14	Luv.	6	Goth.	17
Arm.	2	OCS	14	Lyc.	7	ON	12
Gk.	3	Lith.	14	TA	8	OHG	17
Alb.	13	OE	5	OPer.	9	Welsh	18
TB	4	OI	15	OPru.	10	Osc.	16
Ved.	14	Lat.	16	Latv.	11	Umb.	16

Shared stems are all derivs. of \*deks-; the suffixes are:

14 \*-ino-                    16 \*-(i)tero-                    17 \*-won-

On the Albanian form see Demiraj 1997:137-8; on the Tocharian forms see Schmidt 1994:281, 1996:276, and especially Pinault 2002:248-61.

## 125 right

Hitt.	1	Av.	17	Luv.	10	Goth.	18
Arm.	2	OCS	7	Lyc.	11	ON	18
Gk.	3	Lith.	8	TA	12	OHG	18
Alb.	4	OE	18	OPer.	13	Welsh	9/21
TB	5	OI	9/20	OPru.	14	Osc.	16
Ved.	6/19	Lat.	18	Latv.	15	Umb.	18

9 PCelt. \*kowīros                    18 verbal adj. \*h<sub>3</sub>reǵtós

Note that OPers. *rāsta* is not part of set 6; its root is PIr. \*rād<sup>h</sup>- ‘bring to a goal successfully’.

## 126 river

Hitt.	1	Av.	7/17	Luv.	1	Goth.	10/18
Arm.	2	OCS	8	Lyc.	12	ON	10
Gk.	3	Lith.	9	TA	13	OHG	10/19
Alb.	4	OE	10	OPer.	7	Welsh	1
TB	5	OI	1	OPru.	9	Osc.	14
Ved.	6/16	Lat.	11	Latv.	9	Umb.	15

1 \*h<sub>2</sub>éb<sup>h</sup>ō ~ \*h<sub>2</sub>éb<sup>h</sup>on-                    9 PBalt. \*upē  
 7 derivs. of \*srew- ‘flow’                    10 PGmc. \*ah<sup>w</sup>ō (= Lat. *aqua* ‘water’)

Note that Gothic *flodus* and OHG *fluz* differ in root-ablaut, suffix, and derivational relationships within their respective languages (even though they may reflect the same PIE root); we have therefore coded them separately.

## 127 road

Hitt.	1	Av.	6/7	Luv.	12	Goth.	9
Arm.	2/15 [loans]	OCS	6	Lyc.	13	ON	9/18
Gk.	3	Lith.	8	TA	5	OHG	9
Alb.	4	OE	9/16	OPer.	6	Welsh	14 [loan]
TB	5	OI	10/17	OPru.	6	Osc.	11
Ved.	6/7	Lat.	11	Latv.	8	Umb.	11
5 PToch.	*yətariye	7 PIIr.	*ádhvā	9 PGmc.	*wegaz		
6 *póntoh <sub>2</sub> s	'path'	8 PEBal.	*keljas	11 PItal.	*wiā		

Both Armenian words appear to be loans (cf. Olsen 1999:892-3, 933).

## 128 root

Hitt.	1	Av.	7	Luv.	12	Goth.	10
Arm.	2	OCS	8	Lyc.	13	ON	10
Gk.	3	Lith.	9	TA	14	OHG	10
Alb.	4	OE	10	OPer.	15	Welsh	10
TB	5	OI	11	OPru.	9	Osc.	16
Ved.	6	Lat.	10	Latv.	9	Umb.	17
9 PBalt.	*šaknis	10	*wreh <sub>2</sub> d- ~ *wṛh <sub>2</sub> d-				

## 129 rope

Hitt.	1a	Av.	7	Luv.	13	Goth.	17
Arm.	2/23/24/25	OCS	8	Lyc.	14	ON	22/9/10/33
Gk.	3/26	Lith.	8/29	TA	15	OHG	21/10/34
Alb.	4/27	OE	21/9/10	OPer.	16	Welsh	18
TB	5	OI	11/330/31	OPru.	8	Osc.	19
Ved.	6/28	Lat.	12	Latv.	8/32	Umb.	20
8 PBS	*wirwi-	10 PNWGmc.	*strangiz				
9 PNWGmc.	*raipa-	21 PWGmc.	*sail				

On the Armenian words see Clackson 1994:228 fn. 175.

## 130 rotten

Hitt.	1	Av.	17	Luv.	9	Goth.	19
Arm.	2	OCS	7	Lyc.	10	ON	22
Gk.	3	Lith.	18	TA	11	OHG	19
Alb.	4	OE	19	OPer.	12	Welsh	14 [loan]
TB	5	OI	8	OPru.	13	Osc.	15
Ved.	6	Lat.	20	Latv.	21/23	Umb.	16

19 PGmc. \*fūlaz

## 131 round

Hitt.	1	Av.	7	Luv.	13	Goth.	18
Arm.	2	OCS	8	Lyc.	14	ON	10
Gk.	3	Lith.	9	TA	15	OHG	10
Alb.	4	OE	10	OPer.	16	Welsh	11
TB	5	OI	11	OPru.	17	Osc.	19
Ved.	6	Lat.	12	Latv.	9	Umb.	20

9 PEBalt. \*apvalus

11 PCelt. \*krundis

10 NWGmc. \*sin-wal- (various extensions)

The East Baltic and Northwest Germanic compounds are clearly related, but as the common element is a verb root meaning 'roll', they can be completely independent formations.

## 132 rub

Hitt.	1	Av.	7	Luv.	12	Goth.	18
Arm.	2	OCS	8	Lyc.	13	ON	18
Gk.	3	Lith.	8	TA	14	OHG	9/23
Alb.	4	OE	9	OPer.	15	Welsh	19 [loan]
TB	5/22	OI	10	OPru.	16	Osc.	20
Ved.	6	Lat.	11	Latv.	17	Umb.	21

8 derivs. of \*ter-

18 PGmc. \*bnūidi

9 PWGmc. \*gnīdidi

## 133 salt

Hitt.	1	Av.	5	Luv.	7	Goth.	12
Arm.	2	OCS	2	Lyc.	8	ON	12
Gk.	2	Lith.	6	TA	11	OHG	12
Alb.	3	OE	12	OPer.	9	Welsh	13
TB	11	OI	13	OPru.	2	Osc.	10
Ved.	4	Lat.	2	Latv.	2	Umb.	2
2 *sal-				12 PGmc.	*salta <sub>q</sub>		
11 PToch.	*saly <sub>ey</sub> e			13 PCelt.	*saleno-		

## 134 sand

Hitt.	1	Av.	6	Luv.	11	Goth.	15
Arm.	2	OCS	7	Lyc.	12	ON	2
Gk.	2	Lith.	8/19	TA	4	OHG	2
Alb.	3	OE	2	OPer.	13	Welsh	16
TB	4	OI	9	OPru.	14	Osc.	17
Ved.	5	Lat.	10	Latv.	8	Umb.	18
2 *sámh <sub>2</sub> d <sup>h</sup> os (see notes)				8 PE Balt.	*smiltis		
4 PToch.	*warVñc-						

We adopt the hypothesis that Gk. ἄμμος is the product of lexical analogy between ἄμαθος, which is clearly related to Gmc. \*sandaz, and an unrelated word ψάμμος (see Frisk 1960, 1970 s.vv.); further, that Arm. *awaz* likewise belongs to this cognate set (though *-r* rather than *-z* should probably be expected as a reflex of \*d<sup>h</sup>; see also Olsen 1999:24).

The vowels of the second syllables of the Tocharian words do not match; since both words are poorly attested, it is difficult to know what to make of that.

## 135 say

Hitt.	1	Av.	6/20	Luv.	11	Goth.	15
Arm.	2	OCS	7/18	Lyc.	12	ON	8/15
Gk.	3	Lith.	1/8	TA	13	OHG	8/15
Alb.	4	OE	8/15	OPer.	4	Welsh	16
TB	17	OI	9	OPru.	14	Osc.	10
Ved.	5/6	Lat.	10	Latv.	8/19	Umb.	10
1 *ter-				8 *sek <sup>w</sup> -			
4 *kéh <sub>1</sub> sti ~ *kéh <sub>1</sub> s-				10 PI tal.	*deyket (*deyk- ‘show’)		

5 \*wek<sup>W</sup>-

15 PGmc. \*kwibidi (\*kweþa-)

6 \*mléwHti ~ \*mluH-

The polymorphism of this character is complex and extensive; especially striking are the distributions of states 1 (Hittite and Lithuanian) and 4 (Albanian and Old Persian). It seems very likely that PIE and many of its daughters had several verbs meaning ‘say’.

## 136 scratch

Hitt.	1	Av.	7	Luv.	13	Goth.	19
Arm.	2	OCS	8	Lyc.	14	ON	12
Gk.	3	Lith.	9/26	TA	15	OHG	20
Alb.	4/24	OE	10/27	OPer.	16	Welsh	21
TB	5	OI	11	OPru.	17	Osc.	22
Ved.	6/25	Lat.	12	Latv.	18	Umb.	23
12 *skab <sup>h</sup> -							

## 137 sea

Hitt.	1	Av.	7	Luv.	11	Goth.	8
Arm.	2	OCS	8	Lyc.	12	ON	10/17
Gk.	3	Lith.	9	TA	13 [loan]	OHG	8/10
Alb.	4	OE	10	OPer.	7	Welsh	8
TB	5 [loan]	OI	8/16	OPru.	9	Osc.	14
Ved.	6	Lat.	8	Latv.	9	Umb.	15
7 PIran. *zrayah				9 PBalt. *jūrā			
8 *móri ~ *mréy-				10 PGmc. *saiwiz			

## 138 see

Hitt.	1	Av.	7	Luv.	12	Goth.	10
Arm.	2	OCS	8	Lyc.	13	ON	10
Gk.	3	Lith.	9	TA	5	OHG	10
Alb.	4	OE	10	OPer.	7	Welsh	15
TB	5	OI	11	OPru.	8	Osc.	16
Ved.	6	Lat.	8	Latv.	14	Umb.	8
5 PToch. *ləka(šə)				8 *wid-éh <sub>1</sub> -, stative of *weyd- ‘catch sight of’			
7 PIran. *vainati				10 PGmc. *sihwidi (*sehwa-)			

On the Albanian form see Demiraj 1997:57.

## 139 seed

Hitt.	1	Av.	7/8	Luv.	1	Goth.	14
Arm.	2	OCS	9	Lyc.	18	ON	14
Gk.	2	Lith.	10	TA	4/5	OHG	9
Alb.	3	OE	11	OPer.	13	Welsh	15
TB	4/5	OI	12	OPru.	9	Osc.	16
Ved.	6	Lat.	9	Latv.	10	Umb.	17
1 PAnat.	*warwalan			9	*séh <sub>1</sub> mŋ ~ *sh <sub>1</sub> mén-		
2	*spérmŋ			10	PEBalt.	*sēklā	
4	PToch.	*sarmə		14	PGmc.	*friwā	
5	PToch.	*səktalye					

## 140 sew

Hitt.	1	Av.	7	Luv.	9	Goth.	6
Arm.	2	OCS	6	Lyc.	10	ON	18
Gk.	3	Lith.	6	TA	11	OHG	14
Alb.	4	OE	6	OPer.	12	Welsh	15
TB	5	OI	8	OPru.	13	Osc.	16
Ved.	6	Lat.	6	Latv.	6	Umb.	17
6	*siHw-						

## 141 sharp

Hitt.	1	Av.	17	Luv.	9	Goth.	6
Arm.	2/19	OCS	18	Lyc.	10	ON	6/7
Gk.	3/20	Lith.	18	TA	11	OHG	6/7
Alb.	4	OE	6/7	OPer.	17	Welsh	13/23
TB	16/21	OI	8/22	OPru.	12	Osc.	14
Ved.	5	Lat.	19	Latv.	20	Umb.	15
6	PGmc.	*hwassaz		17	*tigrós		
7	PNWGmc.	*skarpaz		18	PBS	*aštrus	

## 142 short

Hitt.	1	Av.	3	Luv.	1	Goth.	15
Arm.	2	OCS	7	Lyc.	11	ON	16
Gk.	3	Lith.	8	TA	12	OHG	16/21
Alb.	4 [loan]	OE	9	OPer.	13	Welsh	10/22
TB	5	OI	10/19/20	OPru.	14	Osc.	17
Ved.	6	Lat.	3	Latv.	14	Umb.	18
1 PAnat.	*mannenk <sup>W</sup> o-			14 PBalt.	*insas		
3	*mréghus ~ *mréghéw-			16 PNWGmc.	*skamm-		
10 PCelt.	*birros						

## 143 sing

Hitt.	1	Av.	7	Luv.	11	Goth.	9
Arm.	2	OCS	5	Lyc.	12	ON	9/17
Gk.	3	Lith.	8	TA	5	OHG	9
Alb.	4 [loan]	OE	9	OPer.	13	Welsh	10
TB	5	OI	10	OPru.	14	Osc.	16
Ved.	6	Lat.	10	Latv.	15	Umb.	10
5	*peyH-			10 PItCelt.	*kaneti		
9 PGmc.	*sing <sup>W</sup> idi						

## 144 sit

Hitt.	1	Av.	1	Luv.	1	Goth.	8
Arm.	2	OCS	2	Lyc.	5	ON	8
Gk.	1	Lith.	2	TA	4	OHG	8
Alb.	3	OE	8	OPer.	6	Welsh	11
TB	1/4	OI	9	OPru.	10	Osc.	7
Ved.	1	Lat.	2	Latv.	2	Umb.	2
1	*é̄sor			4 PToch.	*səm <sup>Y</sup> ə(sə)		
2 derived stative	*sed-éh <sub>1</sub> -			8 pres.	*sed-ye/o-		

## 145 skin

Hitt.	1	Av.	7	Luv.	12	Goth.	15
Arm.	2	OCS	8	Lyc.	13	ON	10/20
Gk.	3/19	Lith.	9	TA	5	OHG	10/15
Alb.	4	OE	10	OPer.	14	Welsh	16
TB	5	OI	11	OPru.	10 (?)	Osc.	17
Ved.	6	Lat.	10	Latv.	9	Umb.	18
5 PToch.	*yēt <sup>s</sup> ē			10	derivs. of *kuHtis		
9 PE Balt.	*ādā			15	PGmc. *fellā (cf. Lat. <i>pellis</i> 'hide')		

## 146 sky

Hitt.	1	Av.	6/7	Luv.	1	Goth.	9
Arm.	2	OCS	1	Lyc.	12	ON	9
Gk.	3	Lith.	8	TA	13 [loan]	OHG	9
Alb.	4	OE	9	OPer.	7	Welsh	14
TB	5	OI	10	OPru.	8	Osc.	15
Ved.	6	Lat.	11	Latv.	1	Umb.	16
1	*nēb <sup>h</sup> os 'cloud'			8	PBalt. *dangus		
6	*dyēws			9	PGmc. *himinaz		
7	*h <sub>2</sub> ékmō 'stone'						

## 147 sleep

Hitt.	1	Av.	6	Luv.	11	Goth.	8
Arm.	2	OCS	6	Lyc.	12	ON	6
Gk.	3	Lith.	7	TA	5	OHG	8
Alb.	4	OE	8	OPer.	13	Welsh	15/16
TB	5	OI	9	OPru.	7	Osc.	17
Ved.	1	Lat.	10	Latv.	14	Umb.	18
1	*sēsti			7	PBalt. *meig-		
5	PToch. *klēns-			8	PGmc. *slēpidi		
6	*swep- 'fall asleep'						

The parallel development consists in the replacement of stative \*ses- by eventive \*swep-.

## 148 small

Hitt.	1	Av.	7	Luv.	14	Goth.	10
Arm.	2	OCS	8	Lyc.	15	ON	10
Gk.	3	Lith.	9	TA	5/20	OHG	10/11
Alb.	4	OE	10/11	OPer.	16	Welsh	12/22
TB	5/19	OI	12	OPru.	5	Osc.	17
Ved.	6	Lat.	13	Latv.	9	Umb.	18
5	*lik- (?)			11	PGmc. *smalaz		
9	PEBalt. *mažas			12	PCelt. *biggos		
10	PGmc. *lītilaz (with unexplained u-vocalism in the WGmc. forms)						

It is not certain that the Tocharian and Old Prussian forms are related; for an alternative possibility see Adams 1999 s.v. *lykaške*.

## 149 smell

Hitt.	1	Av.	6	Luv.	11	Goth.	15
Arm.	2	OCS	7	Lyc.	12	ON	16
Gk.	2	Lith.	8	TA	4	OHG	9
Alb.	3/20	OE	9	OPer.	13	Welsh	17
TB	4	OI	10	OPru.	14	Osc.	18
Ved.	5	Lat.	2	Latv.	2/21	Umb.	19
2	*(H)od-			9	PWGmc. *stink <sup>w</sup> idi		
4	PToch. *wərṣṣə(ṣə)						

## 150 smoke

Hitt.	1	Av.	6	Luv.	10	Goth.	14
Arm.	2	OCS	17	Lyc.	11	ON	7
Gk.	3	Lith.	17	TA	12	OHG	7
Alb.	4	OE	7/18	OPer.	13	Welsh	8
TB	5	OI	9	OPru.	17	Osc.	15
Ved.	17	Lat.	17	Latv.	17	Umb.	16
7	PGmc. *reuk- ~ *rauk-			17	*d <sup>h</sup> uh <sub>2</sub> mós		

Though there is clearly some connection between the Old English and Welsh forms, the root-final consonants do not match (the OE form reflecting PIE \*-g- or \*-ǵ-, the Welsh form PIE \*-k- or \*-ḱ-); we have therefore coded them separately.

## 151 smooth

Hitt.	1	Av.	7	Luv.	11	Goth.	16
Arm.	2	OCS	8	Lyc.	12	ON	16
Gk.	3	Lith.	8	TA	13	OHG	16/20
Alb.	4	OE	9	OPer.	14	Welsh	17
TB	5	OI	10	OPru.	15	Osc.	18
Ved.	6	Lat.	3	Latv.	8	Umb.	19
3	*ley-w-			16	PGmc. *slehtaz		
8	Balto-Slavic	*glād-	~ *glud-	(details very unclear).			

## 152 snake

Hitt.	1	Av.	3	Luv.	12	Goth.	8/9
Arm.	2	OCS	6	Lyc.	13	ON	8/9
Gk.	3	Lith.	7	TA	5	OHG	8/9
Alb.	4	OE	8/9/10	OPer.	14	Welsh	9/16
TB	2/5	OI	9	OPru.	11	Osc.	17
Ved.	3	Lat.	11	Latv.	15	Umb.	18
2	*awǵ-			8	PGmc. *wurmiz ‘worm’		
3	*h3ég <sup>wh</sup> is			9	*neh <sub>1</sub> tri- (vel sim.)		
5	PToch. *arşaklo			101	*ang <sup>w(h)</sup> is		

The distribution of states 3 and 11 suggests either polymorphism at internal nodes or parallel development—it is difficult to determine which.

Note that Welsh *sarff* is a loan; on Albanian *gjarpër* see Demiraj 1997:183-4.

## 153 snow

Hitt.	1	Av.	5	Luv.	9	Goth.	6
Arm.	2	OCS	6	Lyc.	10	ON	6
Gk.	2	Lith.	6	TA	11	OHG	6
Alb.	3	OE	6	OPer.	12	Welsh	13
TB	4	OI	7	OPru.	6	Osc.	14
Ved.	2	Lat.	8	Latv.	6	Umb.	15
2	*ǵhéyōm ‘winter’ and derivs.			6	*snoyg <sup>wh</sup> os		

## 154 some

Hitt.	1	Av.	5	Luv.	7	Goth.	18
Arm.	14	OCS	16/20	Lyc.	8	ON	18
Gk.	2	Lith.	17	TA	4	OHG	18
Alb.	3	OE	18	OPer.	15	Welsh	11
TB	4	OI	6	OPru.	9	Osc.	12
Ved.	15	Lat.	19	Latv.	10	Umb.	13
					18 PGmc. *sumai		
	4 PToch. *ṣeme						
	15 PIIr. *kái cit						

On the Armenian form see Olsen 1999:806 with references.

## 155 spit

Hitt.	1	Av.	3	Luv.	8	Goth.	3
Arm.	2	OCS	3	Lyc.	9	ON	3
Gk.	3	Lith.	3	TA	10	OHG	3
Alb.	4	OE	3	OPer.	11	Welsh	13
TB	5	OI	7	OPru.	12	Osc.	14
Ved.	6	Lat.	3	Latv.	3	Umb.	15

3 \*spyewH- and derivatives

The shape of the Vedic word does not fit set 3; we suggest that it is onomatopoeic.

## 156 split

Hitt.	1	Av.	6	Luv.	10	Goth.	14
Arm.	1/18	OCS	7	Lyc.	11	ON	8
Gk.	2	Lith.	17	TA	4	OHG	8/20
Alb.	3	OE	8	OPer.	12	Welsh	21
TB	4	OI	9	OPru.	13	Osc.	15
Ved.	5	Lat.	2/5	Latv.	17/19	Umb.	16
	2 *skeyd- (pres. *skinédsti)			8 PNWGmc. *kliubidi (*kleuba-)			
	4 PToch. *kawtna(ṣə)			17 pres. *skélyeti			
	5 *b <sup>h</sup> eyd- (pres. *b <sup>h</sup> inédsti)						

We reluctantly accept the hypothesis that Gk. σχίζει belongs with Lat. *scindit* (and Ved. *c<sup>h</sup>inátti* ‘cuts off’); replacement of the inherited nasal-infixed present is normal in Greek, but the aspiration of the second consonant is difficult to account for.

## 157 squeeze

Hitt.	1	Av.	6	Luv.	12	Goth.	9
Arm.	2	OCS	7	Lyc.	13	ON	9
Gk.	3	Lith.	8	TA	14	OHG	18
Alb.	4	OE	9	OPer.	15	Welsh	10
TB	5/21	OI	10	OPru.	16	Osc.	19
Ved.	3	Lat.	11	Latv.	17	Umb.	20
3	*pi-sed-			10	PCelt. *wāsk- ~ *wask-		
9	PGmc. *þrinh- and derivs.						

## 158 stand

Hitt.	1	Av.	3	Luv.	3	Goth.	8
Arm.	2	OCS	6	Lyc.	3	ON	8
Gk.	3	Lith.	7	TA	5	OHG	6/8
Alb.	4	OE	8	OPer.	3	Welsh	11
TB	5	OI	3	OPru.	10	Osc.	9
Ved.	3	Lat.	9	Latv.	7	Umb.	9
3	*steh₂-, pres. *stísteh₂ti, perf. *stestóh₂e						
5	PToch. *kəlyətər			8	PGmc. *standidi		
6	*sth₂-yé/ó-			9	PItal. *staēt		
7	PEBalt. *stāv-						

Distinctive derivatives are coded separately. On the Italic forms see Cowgill 1973.

## 159 star

[two characters]

Hitt.	1	Av.	1	Luv.	5	Goth.	12
Arm.	1	OCS	3	Lyc.	6	ON	12
Gk.	1	Lith.	3	TA	11	OHG	12
Alb.	2	OE	12	OPer.	7	Welsh	1
TB	11	OI	4	OPru.	8	Osc.	9
Ved.	1	Lat.	1	Latv.	3	Umb.	10
1	*h₂stér and derivs.			11	PToch. *ścəryę		
3	PBS *žvaigždā (vel sim.)			12	PGmc. *sternan-		

## 160 stick

Hitt.	1	Av.	7	Luv.	12	Goth.	17
Arm.	2/23	OCS	8	Lyc.	13	ON	18
Gk.	3/24	Lith.	9/26	TA	14	OHG	19/28
Alb.	4/25	OE	10	OPer.	15	Welsh	20/29
TB	5	OI	11	OPru.	9	Osc.	21
Ved.	6	Lat.	3	Latv.	16/27	Umb.	22
3 *bak-				9 PBalt.	*lazdā		

## 161 stone

Hitt.	1	Av.	6	Luv.	10	Goth.	7
Arm.	2/16	OCS	6	Lyc.	11	ON	7
Gk.	3	Lith.	6	TA	12	OHG	7
Alb.	4	OE	7	OPer.	6/18	Welsh	14/19
TB	5	OI	8/17	OPru.	13	Osc.	15
Ved.	6	Lat.	9	Latv.	6	Umb.	9
6 *h₂ékmō				9 PItal.	*lapid-		
7 PGmc.	*stainaz						

The unexplained velar of the Balto-Slavic forms is part of a well-known larger phenomenon and does not cast doubt on the coherence of set 6.

## 162 straight

Hitt.	1	Av.	6	Luv.	9	Goth.	17
Arm.	2	OCS	7	Lyc.	10	ON	17/19
Gk.	3	Lith.	8	TA	11	OHG	17
Alb.	4 [loan]	OE	17	OPer.	12	Welsh	14
TB	5	OI	6	OPru.	13	Osc.	15
Ved.	6	Lat.	17	Latv.	8/18	Umb.	16
6 *h₃réǵ-u- ~ *h₃réǵ-éw- (cpd. in OIr.)				17 verbal adj.	*h₃réǵtós		
8 PEbalt.	*tiesus						

## 163 suck

Hitt.	1	Av.	5	Luv.	7	Goth.	12
Arm.	2/17	OCS	15	Lyc.	8	ON	16
Gk.	2	Lith.	6/18	TA	9	OHG	16
Alb.	3	OE	16	OPer.	10	Welsh	2/20
TB	4	OI	2/19	OPru.	11	Osc.	13
Ved.	2	Lat.	16	Latv.	6	Umb.	14

2 \*d<sup>h</sup>eh<sub>1</sub>-16 \*sūg<sup>h</sup>-

6 PEBalt. \*žind-

Old Irish *súgid* is probably a Latin loanword, to judge from its “weak” inflection (see Thurneysen 1946:574, Quin et al. 1983 s.v. *súigid*).

## 164 sun

Hitt.	1	Av.	3	Luv.	11	Goth.	3/13
Arm.	2	OCS	3	Lyc.	7	ON	3
Gk.	3	Lith.	12	TA	5	OHG	13
Alb.	4	OE	13	OPer.	8	Welsh	3
TB	5	OI	6	OPru.	12	Osc.	9
Ved.	3	Lat.	3	Latv.	12	Umb.	10

3 \*seh<sub>2</sub>wel- and derivs.

12 PBalt. \*saulē

5 PToch. \*kawnə

13 PGmc. \*sunnōn-

## 165 swell

Hitt.	1	Av.	5	Luv.	11	Goth.	17
Arm.	2/21	OCS	6	Lyc.	12	ON	8/24
Gk.	2	Lith.	7/22	TA	13	OHG	8
Alb.	3	OE	8	OPer.	14	Welsh	18
TB	4	OI	9	OPru.	15	Osc.	19
Ved.	5	Lat.	10	Latv.	16/23	Umb.	20

2 \*h<sub>3</sub>eyd-

8 PNWGmc. \*swillidi (\*swella-)

5 PIIr. \*évay-

## 166 swim

Hitt.	1	Av.	5	Luv.	8	Goth.	14
Arm.	2	OCS	2	Lyc.	9	ON	7
Gk.	3	Lith.	6	TA	10	OHG	7
Alb.	4	OE	7	OPer.	11	Welsh	3
TB	3	OI	3	OPru.	12	Osc.	15
Ved.	2	Lat.	3	Latv.	13	Umb.	16
2 *plew-				7 PGmc.	*swimmidi		
3 *sneh₂-							

## 167 tail

Hitt.	1	Av.	7	Luv.	12	Goth.	18
Arm.	2	OCS	8	Lyc.	13	ON	19
Gk.	3	Lith.	9	TA	14	OHG	10
Alb.	4	OE	10	OPer.	15	Welsh	20
TB	5	OI	23	OPru.	16	Osc.	21
Ved.	6	Lat.	11	Latv.	17	Umb.	22
10 PGmc.	*taglā	‘tail-hair (of horses)’					

## 168 that

Hitt.	1	Av.	4	Luv.	1	Goth.	4
Arm.	2	OCS	4/5/6	Lyc.	8	ON	4
Gk.	3	Lith.	4	TA	4	OHG	4
Alb.	4	OE	4	OPer.	9	Welsh	4
TB	4	OI	4	OPru.	4	Osc.	7
Ved.	4	Lat.	7	Latv.	4	Umb.	7
1 PAnat.	*obós			7 PItal.	*ollo-		
4 *só, fem.	*sáh₂, stem	*tó-					

## 169 there

Hitt.	2	Av.	8	Luv.	10	Goth.	6
Arm.	3	OCS	6	Lyc.	11	ON	6
Gk.	5	Lith.	6	TA	6	OHG	6
Alb.	6	OE	6	OPer.	4	Welsh	12
TB	6/1	OI	9	OPru.	6	Osc.	7
Ved.	6	Lat.	7	Latv.	6	Umb.	7/13

6 derivs. of \*só- ~ \*tó- 'that'      7 \*id<sup>h</sup>éy

## 170 they

Hitt.	1	Av.	4	Luv.	1/7	Goth.	1
Arm.	2	OCS	1/5	Lyc.	1/7	ON	4
Gk.	3	Lith.	1	TA	4	OHG	4
Alb.	4	OE	6	OPer.	8	Welsh	4
TB	4	OI	1	OPru.	4/5	Osc.	1
Ved.	4	Lat.	1	Latv.	9	Umb.	1

1 \*éy, fem. \*íh<sub>2</sub>, neut. \*íd, adj. \*ós etc. and derivs.

4 \*só, fem. \*séh<sub>2</sub>, neut. \*tód 'that' and derivs.

5 \*eno- ~ \*ono- 'that'      7 PAnat. \*obós 'that'

## 171 thick

Hitt.	1	Av.	6	Luv.	11	Goth.	17
Arm.	2	OCS	7	Lyc.	12	ON	9
Gk.	3	Lith.	8	TA	13	OHG	9
Alb.	4	OE	9	OPer.	14	Welsh	9
TB	5	OI	9/21	OPru.	15	Osc.	18
Ved.	3/20	Lat.	10	Latv.	16/22	Umb.	19

3 \*b<sup>h</sup>éng<sup>h</sup>us ~ \*b<sup>h</sup>éng<sup>h</sup>éw-      9 \*tégu

The relation between Vedic *st<sup>h</sup>urás* and Lithuanian *stóras* is remote: the root-shapes do not match, and a parallel semantic development \*‘coagulated’ → \*‘dense’ → ‘thick’ must probably be reconstructed. We have therefore coded them with unique states (the unique Vedic state being automatically suppressed because Vedic also exhibits a shared state for this character). Whether Armenian *stowar* is made to the same root is even more uncertain; see Clackson 1994:43 for discussion.

## 172 thin

Hitt.	1	Av.	7	Luv.	9	Goth.	14
Arm.	2	OCS	6	Lyc.	10	ON	6
Gk.	3	Lith.	8	TA	11	OHG	6
Alb.	4	OE	6	OPer.	12	Welsh	6
TB	5	OI	6/17	OPru.	13	Osc.	15
Ved.	6	Lat.	6	Latv.	6	Umb.	16

6 \*ténh<sub>2</sub>us ~ \*tñh<sub>2</sub>éw- and derivs.

## 173 think

Hitt.	1	Av.	6	Luv.	6	Goth.	9/21
Arm.	2	OCS	7	Lyc.	13	ON	9
Gk.	3	Lith.	8/19	TA	5	OHG	10
Alb.	4 [loan]	OE	9/10	OPer.	6	Welsh	15
TB	5	OI	11/20	OPru.	14	Osc.	16
Ved.	6/18	Lat.	12	Latv.	22	Umb.	17
5	PToch. *pəlskna(ṣə)			9	PGmc. *hugīþi (*hugja-; pret. *hugdē)		
6	*ményetor			10	PGmc. *þankīþi		

On the Luvian word see Melchert 1994:169, 275.

The East Baltic words are quite different derivatives of a Balto-Slavic stem meaning originally ‘judgment’ or the like; we have therefore coded them separately.

## 174 this

Hitt.	1	Av.	4	Luv.	1	Goth.	2
Arm.	1	OCS	1/5	Lyc.	8	ON	6
Gk.	2	Lith.	1	TA	2	OHG	6
Alb.	3	OE	6	OPer.	2/4	Welsh	2
TB	2	OI	2	OPru.	1	Osc.	4
Ved.	4	Lat.	7	Latv.	1	Umb.	4

1 \*kéy, adj. \*kós, and derivs.

2 \*só, fem. \*séh<sub>2</sub>, neut. \*tód ‘that’ and derivs.

4 \*éy, fem. \*ih<sub>2</sub>, neut. \*íd, adj. \*ós, and derivs.

6 NWGmc. derivs. of 2 with deictic particle \*-si

## 175 thou

Hitt.	1	Av.	1	Luv.	1	Goth.	1
Arm.	1	OCS	1	Lyc.	2	ON	1
Gk.	1	Lith.	1	TA	1	OHG	1
Alb.	1	OE	1	OPer.	1	Welsh	1
TB	1	OI	1	OPru.	1	Osc.	1
Ved.	1	Lat.	1	Latv.	1	Umb.	3

1 nom. \*túh<sub>2</sub> (on the Anatolian forms see Melchert 1994:84)

## 175a thee

Hitt.	2	Av.	2	Luv.	2	Goth.	6
Arm.	2	OCS	2	Lyc.	3	ON	6
Gk.	2	Lith.	1	TA	2	OHG	6
Alb.	2	OE	7	OPer.	2	Welsh	2
TB	2	OI	2	OPru.	1	Osc.	5
Ved.	2	Lat.	2	Latv.	4	Umb.	2

1 extended stem \*te-n-

2 acc. \*twé ~ \*te, or dative (variously formed)

6 emphatic \*tége

Note that the final *-g* of the Hittite accusative cannot reflect the emphatic particle \*-ge (which would have become “-gi”).

## 176 three

Hitt.	1	Av.	1	Luv.	1	Goth.	1
Arm.	1	OCS	1	Lyc.	1	ON	1
Gk.	1	Lith.	1	TA	1	OHG	1
Alb.	1	OE	1	OPer.	1	Welsh	1
TB	1	OI	1	OPru.	1	Osc.	1
Ved.	1	Lat.	1	Latv.	1	Umb.	1

1 \*tréyes, fem. \*tisrés, neut. \*tríh₂

## 177 throw

Hitt.	1	Av.	1/20	Luv.	10	Goth.	7
Arm.	2/16	OCS	6/21	Lyc.	11	ON	7/25
Gk.	3/17	Lith.	6	TA	12	OHG	7
Alb.	4	OE	7	OPer.	1	Welsh	13
TB	5/18	OI	8/22/23	OPru.	6	Osc.	14
Ved.	1/19	Lat.	9	Latv.	6/24	Umb.	15

1 \*sh₁iéti (cf. Melchert 1994:154)

7 PGmc. \*wirpidi (\*werpa-)

6 PBS \*meteti

178 tie

Hitt.	1/14	Av.	1/6	Luv.	1/19	Goth.	6
Arm.	2 [loan]	OCS	8/16	Lyc.	11	ON	6
Gk.	3	Lith.	9	TA	5	OHG	6
Alb.	4	OE	6/17	OPer.	6	Welsh	10/20
TB	5/15	OI	7/10/18	OPru.	9	Osc.	13
Ved.	1/3/6/7	Lat.	4	Latv.	1	Umb.	14
1 *sh <sub>2</sub> ey-		5 PToch.	*k <sub>ə</sub> rk-		9 PBalt.	*reiš- ~ *riš-	
3 *deh <sub>1</sub> -		6 *b <sup>h</sup> end <sup>h</sup> -			10 PCelt.	*reig- ~ *rig-	
4 *lig-		7 *ned <sup>h</sup> - (or *nad <sup>h</sup> -)					

179 tongue

Hitt.	1	Av.	15	Luv.	1	Goth.	12
Arm.	2	OCS	10	Lyc.	5	ON	12
Gk.	3	Lith.	11	TA	8	OHG	12
Alb.	4	OE	12	OPer.	15	Welsh	13
TB	8	OI	13	OPru.	10	Osc.	14
Ved.	9	Lat.	2	Latv.	6	Umb.	7

1 PAnat. \*lalos

2 \*dng<sup>h</sup>wéh<sub>2</sub>s ~ \*dng<sup>h</sup>uh<sub>2</sub>-, variously deformed (see Peters 1991)

8 same with stops metathesized (Ringe 1996:45-6)

10 same with \*d- lost

12 same extended as an n-stem

13 same \*d- replaced by *t*-

15 PIran. \*hidzwā

180 tooth

Hitt.	1	Av.	2	Luv.	4	Goth.	2
Arm.	2	OCS	3	Lyc.	5	ON	2
Gk.	2	Lith.	2	TA	3	OHG	2
Alb.	3	OE	2	OPer.	6	Welsh	2
TB	3	OI	2	OPru.	2	Osc.	2
Ved.	2	Lat.	2	Latv.	3	Umb.	7

2 \*h<sub>1</sub>dónts ~ \*h<sub>1</sub>dnt- 3 \*gómb<sup>h</sup>os ‘row of teeth’

On the Armenian word see Olsen 1999:505 with references.

## 181 tree

Hitt.	1	Av.	5	Luv.	9	Goth.	14
Arm.	2	OCS	1/20	Lyc.	10	ON	18
Gk.	19	Lith.	6	TA	3	OHG	17
Alb.	1	OE	18	OPer.	11	Welsh	7/21
TB	3	OI	7	OPru.	12	Osc.	15
Ved.	4	Lat.	8	Latv.	13	Umb.	16
1	*dóru ~ *dréw-			7	PCelt. *kʷrennos		
3	PToch. *stamə			18	PGmc. *trewə		

## 182 turn

Hitt.	1/16	Av.	7	Luv.	11	Goth.	9
Arm.	2	OCS	8	Lyc.	12	ON	13/22
Gk.	3/17	Lith.	6	TA	5	OHG	9/23
Alb.	4/18	OE	9	OPer.	6	Welsh	14
TB	5/19	OI	10	OPru.	6	Osc.	15
Ved.	6/20	Lat.	6	Latv.	6/21	Umb.	6
5	PToch. *spartwa-			9	PGmc. *wandíþi		
6	*wert-						

## 183 two

Hitt.	1	Av.	1	Luv.	2	Goth.	1
Arm.	1	OCS	1	Lyc.	1	ON	1
Gk.	1	Lith.	1	TA	1	OHG	1
Alb.	1	OE	1	OPer.	1	Welsh	1
TB	1	OI	1	OPru.	1	Osc.	3
Ved.	1	Lat.	1	Latv.	1	Umb.	1
1	*duóh <sub>1</sub>						

## 184 vomit

Hitt.	1	Av.	3	Luv.	9	Goth.	13
Arm.	2	OCS	6	Lyc.	10	ON	7
Gk.	3	Lith.	3	TA	11	OHG	7
Alb.	4	OE	7	OPer.	12	Welsh	8/14
TB	5	OI	8	OPru.	3	Osc.	15
Ved.	3	Lat.	3	Latv.	3	Umb.	16

3 \*wémh<sub>1</sub>ti

7 PGmc. \*spīwidi

8 PCelt. \*skei-

## 185 walk

Hitt.	2	Av.	6	Luv.	13	Goth.	8
Arm.	3	OCS	1/7	Lyc.	14	ON	8
Gk.	4	Lith.	1	TA	1	OHG	8/9
Alb.	5	OE	8/9	OPer.	15	Welsh	18
TB	1	OI	10/11	OPru.	16	Osc.	19
Ved.	6	Lat.	12	Latv.	1/17	Umb.	12
1	*h <sub>1</sub> éyti 'go'			9	PWGmc. *gaiþi 'go'		
6	PIIr. *gaséati			12	PItal. *amf-al-		
8	PGmc. *gangidi 'go'						

## 186 warm

Hitt.	1	Av.	2/6	Luv.	9	Goth.	8
Arm.	2	OCS	6	Lyc.	10	ON	8
Gk.	2	Lith.	7	TA	11	OHG	8
Alb.	3	OE	8	OPer.	12	Welsh	6
TB	4	OI	6	OPru.	13	Osc.	14
Ved.	5	Lat.	6	Latv.	7	Umb.	15
2	*g <sup>wh</sup> ṛmós (with ablaut variously remodelled)						
6	derivs. of *tep-			8	PGmc. *warmaz		
7	PEBalt. *šiltas						

## 187 wash

Hitt.	1/14	Av.	3/16	Luv.	9/17	Goth.	7
Arm.	2	OCS	5	Lyc.	10	ON	7
Gk.	2/3/15	Lith.	6	TA	4	OHG	8
Alb.	2	OE	7/8	OPer.	11	Welsh	12
TB	4	OI	3	OPru.	5	Osc.	13
Ved.	3	Lat.	2	Latv.	6	Umb.	2
2	*lewh <sub>3</sub> -	5	PBS *mū-		8	PWGmc. *waskidi	
3	*neyg <sup>w</sup> -	6	PEBalt. *mazgā-				
4	PToch. *lika-	7	PGmc. *þwahidi				

## 188 water

Hitt.	1	Av.	4	Luv.	3	Goth.	1
Arm.	2	OCS	1	Lyc.	6	ON	1
Gk.	1	Lith.	1	TA	1	OHG	1
Alb.	1	OE	1	OPer.	4	Welsh	7
TB	1	OI	1	OPru.	1	Osc.	5
Ved.	1/3	Lat.	5	Latv.	1	Umb.	1
	1 *wódr̥ ~ *udén- and derivs.			4 *h₂ep- 'running water'			
	3 *wéh₁ṛ̥ 'liquid' (Watkins 1987:401-3)			5 *akʷeh₂ ~ *ākʷeh₂ 'running water'			

We adopt the hypothesis that the Oscan word is cognate with the Latin rather than with the Iranian forms.

The reconstructable meanings of states 3 (see Watkins ad loc.), 4 (cf. Vedic *āpas* 'the (divine) Waters'), and 5 (cf. PGmc. \*ahʷō 'river') strongly argue parallel development.

## 189 we

Hitt.	1	Av.	1	Luv.	3	Goth.	1
Arm.	5	OCS	6	Lyc.	4	ON	1
Gk.	2	Lith.	6	TA	8	OHG	1
Alb.	2	OE	1	OPer.	1	Welsh	2
TB	8	OI	2	OPru.	6	Osc.	7
Ved.	1	Lat.	2	Latv.	6	Umb.	9
	1 nom. *wéy and subsequent developments						
	2 acc. *ṇsmé, enclitic *nos, and subsequent developments						
	6 PBS *mes						
	8 PToch. *wësə						

The replacement of \*w- by \*m- can be a parallel development, at least in part (cf. also Pali *mayam* 'we', unarguably a direct reflex of Vedic *vayám*); we have therefore coded the Armenian and Balto-Slavic nominatives separately. An obvious model (still surviving in Old Church Slavonic) is the verb endings, in which the 1du. begins with -v- but the 1pl. with -m-.

The choice of stressed or enclitic forms for generalization in the oblique is clearly a repeatable change; therefore we have not distinguished them in coding.

We have coded the Tocharian forms, in which the initial consonant reflects the nominative and the rest of the form the oblique enclitics, separately.

On the Celtic and Armenian reflexes of state 2 see Katz 1998:96-105, 186-8.

189a us

Hitt.	2	Av.	2	Luv.	2	Goth.	2
Arm.	2	OCS	2	Lyc.	5	ON	2
Gk.	2	Lith.	3	TA	1	OHG	2
Alb.	2	OE	2	OPer.	6	Welsh	2
TB	1	OI	2	OPru.	3	Osc.	4
Ved.	2	Lat.	2	Latv.	3	Umb.	7

1 PToch. \*wësə

2 acc. \*<sup>ŋ</sup>nsmé, enclitic \*nos, and subsequent developments

3 PBalt. \*mans

We have coded the Tocharian forms, in which the initial consonant reflects the nominative and the rest of the form the oblique enclitics, separately.

On the Celtic and Armenian reflexes of state 2 see Katz 1998:96-105, 186-8.

190 wet

Hitt.	1	Av.	7	Luv.	14	Goth.	19
Arm.	2	OCS	8	Lyc.	15	ON	10
Gk.	3/22	Lith.	9	TA	16	OHG	11/19
Alb.	4/23	OE	10/11	OPer.	17	Welsh	12
TB	5	OI	12	OPru.	18	Osc.	20
Ved.	6	Lat.	13	Latv.	9	Umb.	21
9 PEBalt. *šlapjas				12 PCelt. *wlikʷus			
10 PNWGmc. *wātiz				19 PGmc. *nataz			
11 PWGmc. *fūht-							

191 what

Hitt.	1	Av.	1	Luv.	1	Goth.	1
Arm.	1	OCS	1	Lyc.	1	ON	1
Gk.	1	Lith.	1	TA	1	OHG	1
Alb.	1	OE	1	OPer.	2	Welsh	1
TB	1	OI	1	OPru.	1	Osc.	1
Ved.	1	Lat.	1	Latv.	1	Umb.	1

1 \*kʷíd and/or adj. \*kʷód (and subsequent developments)

Since the choice between the two stems is clearly a repeatable change, we have not distinguished them in coding.

## 192 when

Hitt.	1	Av.	11	Luv.	16	Goth.	13
Arm.	8	OCS	12	Lyc.	3	ON	13
Gk.	9	Lith.	11	TA	2/18	OHG	13
Alb.	10	OE	13	OPer.	4	Welsh	17
TB	2	OI	14	OPru.	11	Osc.	5
Ved.	11	Lat.	15	Latv.	11	Umb.	6
2 PToch.	*ént- ~ *ént-			13 PGmc.	*hwan(-)		
11	*k <sup>w</sup> od + vowel-initial particle						

## 193 where

Hitt.	1	Av.	8/16	Luv.	12	Goth.	10
Arm.	5	OCS	9	Lyc.	13	ON	10
Gk.	6	Lith.	5	TA	3	OHG	10
Alb.	7	OE	10	OPer.	4	Welsh	15
TB	2	OI	11	OPru.	14	Osc.	9
Ved.	8/16	Lat.	9	Latv.	5	Umb.	9
5	*kur(-)			10 PGmc.	*hwar		
8	PIIr. *kútra			16 PIIr.	*kúa		
9	*kudhé(±i)						

It seems clear that the choice between states 5 and 9, or perhaps the formation of the former, was a repeatable change.

## 194 white

Hitt.	1	Av.	5/16	Luv.	9	Goth.	14
Arm.	2 [loan]	OCS	6	Lyc.	10	ON	14
Gk.	3	Lith.	15	TA	1	OHG	14
Alb.	4	OE	14	OPer.	11	Welsh	7/18
TB	1	OI	7/17	OPru.	12	Osc.	13
Ved.	1/5	Lat.	8	Latv.	15	Umb.	8
1	*h <sub>2</sub> erǵ-			8	PItal. *alfos < *albhós		
5	PIIr. *évaitas			14	PGmc. *hwītaz		
7	PCelt. *windos			15	P(E)Balt. *baltas		

## 195 who

Hitt.	1	Av.	1	Luv.	1	Goth.	1
Arm.	1	OCS	1	Lyc.	1	ON	1
Gk.	1	Lith.	1	TA	1	OHG	1
Alb.	1	OE	1	OPer.	1	Welsh	1
TB	1	OI	1	OPru.	1	Osc.	1
Ved.	1	Lat.	1	Latv.	1	Umb.	1

1 \*kʷéy and/or adj. \*kʷós (and subsequent developments)

On the Armenian form see Olsen 1999:806.

Since the choice between the two stems is clearly a repeatable change, we have not distinguished them in coding.

## 196 wide

Hitt.	1	Av.	14/17	Luv.	8	Goth.	5
Arm.	15	OCS	4	Lyc.	9	ON	5/6
Gk.	2	Lith.	14	TA	16	OHG	5/6
Alb.	3	OE	5/6	OPer.	10	Welsh	15
TB	16	OI	15	OPru.	11	Osc.	12
Ved.	14/2	Lat.	7	Latv.	14	Umb.	13

2 \*h₁wérus ~ \*h₁juréw-

14 \*pláth₂us ~ \*pl̥th₂éw-

5 PGmc. \*braidaz

15 \*pl̥th₂nós (cf. Olsen 1999:767)

6 PNWGmc. \*wīdaz

16 PToch. \*wərtſē

Many considerations argue parallel development; for instance, though *πλατύς* means ‘flat’ in Attic Greek (which is the basis of our coding), it still means ‘wide’ in Homer, who also uses *εὐρύς*.

## 197 wife

Hitt.	1	Av.	3	Luv.	6	Goth.	1
Arm.	1	OCS	1	Lyc.	7	ON	1
Gk.	1	Lith.	4	TA	1	OHG	1/17
Alb.	2	OE	1/15	OPer.	8	Welsh	10
TB	1	OI	1/16	OPru.	1	Osc.	11
Ved.	1/13/14	Lat.	5	Latv.	9	Umb.	12

1 \*gʷén ~ \*gʷénh₂- ~ \*gʷnéh₂- ‘woman’ and derivs.

## 198 wind

Hitt.	1	Av.	11	Luv.	5	Goth.	10
Arm.	2	OCS	12	Lyc.	6	ON	10
Gk.	2	Lith.	13	TA	10	OHG	10
Alb.	3	OE	10	OPer.	7	Welsh	10
TB	10	OI	4	OPru.	12	Osc.	8
Ved.	11/14	Lat.	10	Latv.	13	Umb.	9

2 \*h<sub>2</sub>ónh<sub>1</sub>mos ‘breath’ (Olsen 1999:27; ablaut adjusted in Greek)

10 “post-laryngeal” \*h<sub>2</sub>wēntós 12 PBS \*vētras

11 PIIr. \*váatas < \*h<sub>2</sub>wéh<sub>1</sub>-ṇt-o-s 13 PE Balt. \*vējas

States 10 and 11 are subsequent developments of 1 (participle \*h<sub>2</sub>wéh<sub>1</sub>-ṇt-s, Melchert 1994:54 with references), but their prehistory is difficult to reconstruct precisely.

## 199 wing

Hitt.	1/22	Av.	20	Luv.	8	Goth.	13
Arm.	3	OCS	6	Lyc.	9	ON	14
Gk.	19	Lith.	21	TA	10	OHG	2
Alb.	4	OE	2	OPer.	11	Welsh	28/25
TB	5	OI	17/24	OPru.	12	Osc.	15
Ved.	20/23	Lat.	7	Latv.	21	Umb.	16

2 derivs. of PNWGmc. \*feþru ‘feather’

20 PIIr. \*parnám 21 PE Balt. \*sparnas

We reject the connection of the Armenian word with state 2 posited by Olsen 1999:51-2.

## 200 wipe

Hitt.	1	Av.	7	Luv.	1	Goth.	17
Arm.	2	OCS	8	Lyc.	13	ON	18
Gk.	3	Lith.	9	TA	5	OHG	17
Alb.	4	OE	10	OPer.	14	Welsh	19
TB	5	OI	11	OPru.	15	Osc.	20
Ved.	6	Lat.	12	Latv.	16	Umb.	21

1 PAnat. \*ómsei 17 PGmc. \*swirbidi (\*swerba-)

5 PToch. \*l<sup>j</sup>iyask-

## 201 with

Hitt.	1	Av.	6/7	Luv.	11	Goth.	9
Arm.	2	OCS	8	Lyc.	12	ON	9
Gk.	3	Lith.	8	TA	5	OHG	9
Alb.	4	OE	9	OPer.	7	Welsh	14
TB	5	OI	10	OPru.	8	Osc.	10
Ved.	6/7	Lat.	10	Latv.	13	Umb.	10
5 PToch.	*sólē			8 PBS	*sVn		
6 PIIr.	*smát			9	*med <sup>h</sup> i or *metí		
7 PIIr.	*sad <sup>h</sup> á			10	*kom		

It is not clear that the Balto-Slavic words belong with the Greek form. The latter was originally *ξύν* (attested in various dialects); the vowel of the PBS word is problematic (cf. Stang 1966:32).

It is also not clear whether the Albanian word belongs with state 6 or state 9 (cf. Demiraj 1997:274-5, but also 55!); we have cautiously assigned it a unique state.

## 202 woman

Hitt.	1	Av.	1/12/13	Luv.	1	Goth.	1
Arm.	1	OCS	1	Lyc.	7	ON	1
Gk.	1	Lith.	4	TA	3	OHG	5
Alb.	2	OE	5	OPer.	8	Welsh	1/14
TB	3	OI	1	OPru.	1	Osc.	10
Ved.	1	Lat.	6	Latv.	9	Umb.	11
1	*gʷén ~ *gʷénh₂- ~ *gʷnéh₂- and derivs.			5	PWGmc. *wīb		
3	PToch. *kʷlyiye						

## 203 woods

Hitt.	1	Av.	7	Luv.	13	Goth.	17
Arm.	2/20	OCS	8	Lyc.	14	ON	10/24/25
Gk.	3	Lith.	9	TA	5/21	OHG	11/26
Alb.	4	OE	10/11	OPer.	15	Welsh	10/27
TB	5/21	OI	10/22/23	OPru.	16	Osc.	18
Ved.	6	Lat.	12	Latv.	16	Umb.	19
5	PToch. *wərto			11	PWGmc. *wald		
10	*wid <sup>h</sup> us			16	PBalt. *medjan		

Note that Tocharian A *kārāś* is a loanword.

## 204 worm

Hitt.	1	Av.	6	Luv.	8	Goth.	13
Arm.	2	OCS	4	Lyc.	9	ON	7/13
Gk.	3	Lith.	4	TA	5	OHG	7
Alb.	4	OE	7	OPer.	10	Welsh	4/14
TB	5	OI	4	OPru.	11	Osc.	15
Ved.	4	Lat.	7	Latv.	12	Umb.	16
4 *kʷ <sub>ṛ</sub> mis			7 *w <sub>ṛ</sub> mis				
5 PToch. *w <sup>y</sup> elə			13 PGmc. *mab-				

## 205 ye

Hitt.	1	Av.	2	Luv.	5	Goth.	2
Arm.	2	OCS	1	Lyc.	6	ON	2
Gk.	1	Lith.	2	TA	3	OHG	2
Alb.	4	OE	2	OPer.	7	Welsh	1
TB	3	OI	1	OPru.	2	Osc.	1
Ved.	2	Lat.	1	Latv.	2	Umb.	8
1 acc. *uswé, enclitic *wos, and subsequent developments							
2 nom. *yú and subsequent developments							
3 PToch. *yēsə							

Our coding relies heavily on the enlightening discussion of these forms in Katz 1998. On the difficulties surrounding the interpretation of Albanian *ju*, which we have coded separately, see Demiraj 1997:209 with references.

## 205a you

Hitt.	1	Av.	1	Luv.	1	Goth.	1
Arm.	4	OCS	1	Lyc.	6	ON	1
Gk.	1	Lith.	2	TA	3	OHG	1
Alb.	5	OE	1	OPer.	7	Welsh	1
TB	3	OI	1	OPru.	1	Osc.	8
Ved.	1	Lat.	1	Latv.	2	Umb.	9
1 acc. *uswé, enclitic *wos, and subsequent developments							
2 nom. *yú and subsequent developments							
3 PToch. *yēsə							

Our coding relies heavily on the enlightening discussion of these forms in Katz 1998. We regard the Armenian oblique stem as still not satisfactorily explained and have there-

fore assigned it a unique state.

206 year

Hitt.	1	Av.	4	Luv.	12	Goth.	11/8
Arm.	2/13	OCS	5	Lyc.	12	ON	11
Gk.	1/14	Lith.	6	TA	3	OHG	11
Alb.	1	OE	11	OPer.	9	Welsh	7
TB	3	OI	7	OPru.	6	Osc.	8
Ved.	1	Lat.	8	Latv.	10	Umb.	8
1	*wet-			8	*atnos		
3	PToch.	*p <sup>y</sup> əkwəl		11	PGmc.	*jērā	
6	PBalt.	*metan		12	PLuv.	*utsis	
7	PCelt.	*bleidanī					

207 yellow

Hitt.	1	Av.	16	Luv.	1	Goth.	12
Arm.	2	OCS	6	Lyc.	9	ON	19
Gk.	3	Lith.	17	TA	10	OHG	18
Alb.	4 [loan]	OE	18	OPer.	11	Welsh	13
TB	5	OI	7	OPru.	17	Osc.	14
Ved.	16	Lat.	8	Latv.	17	Umb.	15
1	PAnat.	*HaH <sub>2</sub> went-		17	PBalt.	*gelt-	
16	PIIr.	*z <sup>h</sup> ális		18	PWGmc.	*gelw	

301 arm

Hitt.	1	Av.	5	Luv.	11	Goth.	8
Arm.	2 [loan]	OCS	6	Lyc.	12	ON	8/18
Gk.	3	Lith.	7	TA	5	OHG	8
Alb.	4	OE	8	OPer.	13	Welsh	14 [loan]
TB	5	OI	9/17	OPru.	8	Osc.	15
Ved.	5	Lat.	10 [loan]	Latv.	7	Umb.	16
5	*b <sup>h</sup> āg <sup>h</sup> us			8	*arHmos ~ *t <sup>h</sup> Hmos	‘joint’	
7	PBS	*rankā	‘hand’				

## 302 arrow

Hitt.	1	Av.	5	Luv.	10	Goth.	7
Arm.	1	OCS	6	Lyc.	11	ON	7
Gk.	2/18/19	Lith.	6/22	TA	4	OHG	6
Alb.	3 [loan]	OE	6/7	OPer.	12	Welsh	15 [loan]
TB	4/20	OI	8 [loan]	OPru.	13	Osc.	16
Ved.	5/21	Lat.	9	Latv.	14	Umb.	17
	1 *ned- ~ *nod- 'reed'		6 *streh <sub>1</sub> leh <sub>2</sub>				
	4 PToch. *pərë- (?)		7 PGmc. *arh <sup>wō</sup>				
	5 *ísus						

The polymorphism is leaf-connected. Both the meaning of the preform for state 1 and the distribution of state 6 (unless the latter reflects borrowing) suggest parallel development.

## 303 ask

Hitt.	1	Av.	2	Luv.	8	Goth.	16
Arm.	2	OCS	15	Lyc.	9	ON	17/21
Gk.	3	Lith.	5	TA	14	OHG	6/22
Alb.	4	OE	6/16	OPer.	2	Welsh	11/23
TB	14	OI	2/18	OPru.	10	Osc.	12
Ved.	2	Lat.	7	Latv.	15/19/20	Umb.	13
	2 *prek-, pres. *preskéti		15 intensive *prokéyeti				
	6 PWGmc. *aiskōþi		16 PGmc. pres. *frigniþi (*fregna-)				
	14 PToch. pres. *prëks-						

The original present is extended in Armenian and compounded in Old Irish; we have not coded those forms separately.

## 304 autumn

Hitt.	1	Av.	7	Luv.	12	Goth.	3
Arm.	2	OCS	3	Lyc.	13	ON	16
Gk.	3	Lith.	8	TA	14	OHG	9
Alb.	4	OE	9	OPer.	15	Welsh	17
TB	5	OI	10	OPru.	3	Osc.	18
Ved.	6	Lat.	11	Latv.	8	Umb.	19
	3 *óṣṛ, *esen- and derivs.		9 PWGmc. *harbist				
	8 PEBalt. *ruden-						

## 305 be awake

Hitt.	1	Av.	3	Luv.	9	Goth.	7
Arm.	2/18	OCS	6	Lyc.	10	ON	7
Gk.	3	Lith.	6/19	TA	11	OHG	7
Alb.	4	OE	7	OPer.	12	Welsh	14
TB	5	OI	8	OPru.	6	Osc.	15
Ved.	3	Lat.	17	Latv.	13	Umb.	16

3 \*h<sub>1</sub>geh<sub>1</sub>góre

7 PGmc. \*wakaiþi

6 PBS \*bud- < \*b<sup>h</sup>ud<sup>h</sup>- ‘wake up’

On the Gothic form see Krause 1953:230.

## 306 ax

Hitt.	1/17	Av.	7	Luv.	12	Goth.	3
Arm.	2 [loan]	OCS	8/9	Lyc.	13	ON	3
Gk.	3/4	Lith.	10	TA	6 [loan]	OHG	3/9
Alb.	5	OE	3	OPer.	14	Welsh	11
TB	6 [loan]	OI	11/18	OPru.	17	Osc.	15
Ved.	4	Lat.	8	Latv.	10	Umb.	16

3 \*ag<sup>w</sup>es-9 derivs. of \*b<sup>h</sup>arsd<sup>h</sup>eh<sub>2</sub> ‘beard’

4 \*pelekus

10 PEBalt. \*kirvjas

6 PToch. \*peret<sub>2</sub>

11 PCelt. \*bielis (vel sim.)

8 derivs. of \*sek- ‘cut’ with unusual suffix \*-ūr-

The shape of the Celtic suffix remains unclear, as the attested forms do not match. The Greek reflex of state 3 is also anomalous (we expect -ψ-, not -ξ-).

The Tocharian word was borrowed from some northeast Iranian reflex of state 4 *before* the Proto-Tocharian period; thus we assign both Tocharian languages the same state, but a different state from 4.

The reconstructable meanings of states 8 and 9 strongly argue parallel development; further, the phonological anomalies of some reflexes (see above) and the odd shapes of the preforms for states 3 and 4 suggest undetected borrowing of words denoting an important trade and culture item.

## 307 axle

Hitt.	1	Av.	6	Luv.	8	Goth.	12
Arm.	2	OCS	3	Lyc.	9	ON	3
Gk.	3	Lith.	3	TA	10	OHG	3
Alb.	4	OE	3	OPer.	11	Welsh	3
TB	5	OI	7	OPru.	3	Osc.	13
Ved.	3	Lat.	3	Latv.	3	Umb.	14
3 *h <sub>2</sub> ēks-							

## 308 be

Hitt.	1	Av.	1	Luv.	1	Goth.	1/5
Arm.	1/7	OCS	1	Lyc.	1	ON	1/5
Gk.	1	Lith.	1/3	TA	1/2/6	OHG	1/4/5
Alb.	1	OE	1/4/5	OPer.	1	Welsh	1/9/10
TB	1/2/6	OI	1/4/8	OPru.	1	Osc.	1/4
Ved.	1	Lat.	1/4	Latv.	1/3	Umb.	1/4

1 \*h<sub>1</sub>ésti, opt. \*h<sub>1</sub>siéh<sub>1</sub>d, etc. 4 derivs. of \*b<sup>h</sup>uh<sub>2</sub>- 'become'

2 PToch. nēsə(ṣə) 5 PGmc. \*wesanā < \*h<sub>2</sub>wes- 'stay overnight'

3 PEBalt. \*īra 6 PToch. \*məsketər 'be (in a place)'

In accordance with our decision regarding suppletive verbs, only forms of the present stem(s) have been coded, except for Welsh; but this verb is suppletive even in the present in many languages. In the Italic languages state 4 is represented in the present system by Lat. *foret*, Osc. **fusíd**, etc.; in OIr. it is represented by the consuetudinal present and imperative. State 6 reflects a separate verb with partly overlapping functions.

## 309 bear

Hitt.	1	Av.	1	Luv.	7	Goth.	11
Arm.	1	OCS	3	Lyc.	8	ON	5
Gk.	1	Lith.	4/14	TA	9	OHG	5
Alb.	1	OE	5	OPer.	10	Welsh	1
TB	2	OI	6	OPru.	4	Osc.	12
Ved.	1	Lat.	1	Latv.	4	Umb.	13
1 *h <sub>2</sub> ītkos 5 PNWGmc. *beran-							
4 PBalt. *lākijas							

## 310 beard

Hitt.	1	Av.	4	Luv.	7	Goth.	11
Arm.	1	OCS	5	Lyc.	8	ON	12
Gk.	2	Lith.	5	TA	9	OHG	5
Alb.	1	OE	5	OPer.	10	Welsh	13 [loan]
TB	3	OI	6	OPru.	5	Osc.	14
Ved.	1	Lat.	5	Latv.	5	Umb.	15

1 \*smákru (\*smékru ?) 5 \*b<sup>h</sup>arsdheh<sub>2</sub>

## 311 bee

Hitt.	1	Av.	5	Luv.	8	Goth.	12
Arm.	2	OCS	6	Lyc.	9	ON	6
Gk.	16	Lith.	18	TA	10 [loan]	OHG	6
Alb.	17	OE	6	OPer.	11	Welsh	13
TB	3	OI	6	OPru.	18	Osc.	14
Ved.	4	Lat.	7	Latv.	18	Umb.	15

6 derivs. of \*b<sup>h</sup>ey-

18 PBalt. \*bitē

## 312 be born

Hitt.	1	Av.	2	Luv.	8	Goth.	7
Arm.	2	OCS	5	Lyc.	9	ON	7
Gk.	2	Lith.	6	TA	4	OHG	7
Alb.	3	OE	7	OPer.	10	Welsh	2
TB	4	OI	2	OPru.	6	Osc.	2
Ved.	2	Lat.	2	Latv.	6	Umb.	11

2 \*ǵenh<sub>1</sub>-, pres. \*ǵnh<sub>1</sub>yétor 6 PBalt. \*gem-, pres. \*gimsta

4 PToch. \*təmnəstər 7 PGmc. \*beradai ‘is carried’ and syntactic

replacements of the same

## 313 bow

Hitt.	1	Av.	6x	Luv.	11	Goth.	15
Arm.	2	OCS	7	Lyc.	12	ON	8
Gk.	3	Lith.	7	TA	13 [loan]	OHG	8
Alb.	4 [loan]	OE	8	OPer.	19/20	Welsh	16 [loan]
TB	5	OI	9 [loan]	OPru.	14	Osc.	17
Ved.	6	Lat.	10	Latv.	7	Umb.	18

7 PBS \*lankas 8 PNWGmc. \*bogan-  
 19 PIr. \*θanvṛ̥ ( $\theta$ - ← \*θanj- 'draw')

On the initial consonant of the Iranian form cf. Mayrhofer 1992 s.v. *dhánus-*.

314 branch

Hitt.	1	Av.	9/10	Luv.	19	Goth.	2
Arm.	2/3	OCS	8/11	Lyc.	20	ON	24/25
Gk.	4	Lith.	7	TA	6	OHG	2/13/14
Alb.	5	OE	12/13/14	OPer.	21	Welsh	26/27
TB	6	OI	15/16/17	OPru.	22	Osc.	28
Ved.	7/8	Lat.	18	Latv.	23	Umb.	29
2 *h <sub>3</sub> ósdos				8 *weyh <sub>1</sub> -yeh <sub>2</sub> - (?)			
6 PToch. *kérakə				9 PWGmc. *telg-			
7 *kokh <sub>2</sub> eh <sub>2</sub> (*-ō-; orig. collective?)				10 PWGmc. *twig / *twīg			

The Tocharian A forms appears to have been extended with a suffix *\*-eye*.

315 break

Hitt.	1	Av.	6	Luv.	10/22	Goth.	9
Arm.	2/18	OCS	7	Lyc.	11	ON	13
Gk.	3/19	Lith.	8	TA	5	OHG	9
Alb.	4	OE	9	OPer.	12	Welsh	14
TB	5	OI	2/20	OPru.	7	Osc.	15
Ved.	2	Lat.	17/21	Latv.	8	Umb.	16
2 *b <sup>h</sup> eg-				8 PEBalt.	*laužja		
5 PToch.	*kawtna(šə)			9 PGmc.	*brikidi (*breka-)		
7 *lem-							

We accept the usual view that Old Irish *boingid* belongs with state 2.

316 bronze

Hitt.	1	Av.	7	Luv.	11	Goth.	7
Arm.	2 [loan]	OCS	8	Lyc.	12	ON	7
Gk.	3	Lith.	9 [loan]	TA	13	OHG	7
Alb.	4/16 [loans]	OE	7	OPer.	14	Welsh	10
TB	5	OI	10	OPru.	15	Osc.	7
Ved.	6/7	Lat.	7	Latv.	16 [loan]	Umb.	7
7 *áyos				10 PCelt. *omiom			

It is likely that *áyas* means ‘bronze’ in several instances in the Rigveda; on that hypothesis we assign state 7 to Vedic.

317 brother

Hitt.	1	Av.	2	Luv.	1	Goth.	2
Arm.	2	OCS	2	Lyc.	1	ON	2
Gk.	3	Lith.	5	TA	2	OHG	2
Alb.	4	OE	2	OPer.	2	Welsh	2
TB	2	OI	2	OPru.	2	Osc.	2
Ved.	2	Lat.	2	Latv.	5	Umb.	2
1 PAnat. *negnas		5 PEBalt. *brāljas					
2 *b <sup>h</sup> réh <sub>2</sub> tēr							

318 brother-in-law

Hitt.	1	Av.	5	Luv.	8	Goth.	13
Arm.	2	OCS	2	Lyc.	9	ON	14
Gk.	2	Lith.	6/19	TA	10	OHG	15
Alb.	3	OE	2	OPer.	11	Welsh	16
TB	4	OI	7	OPru.	12	Osc.	17
Ved.	2	Lat.	2	Latv.	6	Umb.	18
2 *dayh <sub>2</sub> wēr		6 PEBalt. *svainjas					

The alternative Lithuanian word is borrowed from German; the Welsh term is a loan-translation from English (and so for all the in-law terms).

319 bull

Hitt.	1	Av.	7	Luv.	11	Goth.	16
Arm.	2/18	OCS	8	Lyc.	12	ON	17/19/20
Gk.	3	Lith.	9 [loan]	TA	5	OHG	10
Alb.	4	OE	10	OPer.	13	Welsh	3
TB	5	OI	3	OPru.	14	Osc.	3
Ved.	6/7	Lat.	3	Latv.	15 [loan]	Umb.	3
3 *tawros		7 *uksén					
5 PToch. *këwwərṣe		10 PWGmc. *farr					

## 320 buy

Hitt.	1	Av.	4	Luv.	9	Goth.	7
Arm.	16	OCS	5 [loan]	Lyc.	10	ON	14
Gk.	17	Lith.	6	TA	11	OHG	15
Alb.	2	OE	7	OPer.	12	Welsh	3
TB	3	OI	3	OPru.	13	Osc.	8
Ved.	3	Lat.	8	Latv.	6	Umb.	8
3	*kʷreyh₂- (pres. *kʷrinéh₂ti)			7	PGmc. *bugiþi (*bugja-)		
6	PEBalt. *perka			8	PItal. *emet		

The inflection of the ON and OHG verbs (and other cognates) does not match from language to language; we code them as independent developments, probably derivatives of a noun borrowed from Latin.

## 321 carry

Hitt.	1	Av.	2	Luv.	1	Goth.	2
Arm.	2/10	OCS	9	Lyc.	5	ON	2
Gk.	2	Lith.	4	TA	2	OHG	7
Alb.	3/11	OE	2	OPer.	2	Welsh	8/12
TB	2	OI	2	OPru.	6	Osc.	2
Ved.	2	Lat.	2	Latv.	4	Umb.	2
1	PAnat. *pe-d-			4	PBS *nešeti		
2	*bhéreti						

Though the Old Prussian word superficially resembles the Anatolian forms, we can find no evidence that it should be analyzed the same way (i.e., as the prefix \*pe- plus the root \*deh₃- ‘take’); thus we do not judge it cognate with them.

## 322 cattle

Hitt.	1	Av.	3	Luv.	9	Goth.	14
Arm.	2	OCS	3	Lyc.	10	ON	7/12
Gk.	3	Lith.	6	TA	3/5	OHG	8
Alb.	4	OE	7/8	OPer.	11	Welsh	15
TB	3/5	OI	3	OPru.	12	Osc.	16
Ved.	3	Lat.	3	Latv.	13	Umb.	3
3	*gʷówes			8	PWGmc. *hrinþizu		
5	*uksénes ‘bulls’			12	*péku (collective)		
7	PNWGmc. *nautu						

## 323 collect

Hitt.	1/16	Av.	5	Luv.	10	Goth.	1
Arm.	2/17	OCS	6	Lyc.	11	ON	1/8
Gk.	3	Lith.	7	TA	4	OHG	1/8
Alb.	3	OE	1/8/19	OPer.	12	Welsh	9/23
TB	4/18	OI	9/20	OPru.	7	Osc.	13
Ved.	5	Lat.	3	Latv.	15/21/22	Umb.	14
1	*lésti			7	PBalt. *renka		
3	*légeti			8	PNWGmc. *samnōpi		
4	PToch. *krëwp-			9	cpds. of PCelt. *ela-		
5	PIIr. *čináuti						

## 324 comb

Hitt.	1	Av.	7	Luv.	11	Goth.	17
Arm.	2	OCS	8/20	Lyc.	12	ON	10
Gk.	3	Lith.	9	TA	13	OHG	10
Alb.	4	OE	10	OPer.	14	Welsh	18
TB	5	OI	21	OPru.	15	Osc.	19
Ved.	6	Lat.	3	Latv.	16 [loan]	Umb.	3
3	*péktŋ ~ *pktén-			10	PGmc. *kambaz		

## 325 cook

Hitt.	1	Av.	3	Luv.	9	Goth.	14
Arm.	2	OCS	5	Lyc.	10	ON	15
Gk.	3	Lith.	6	TA	3	OHG	16 [loan]
Alb.	4	OE	7	OPer.	11	Welsh	17 [loan]
TB	3	OI	8	OPru.	12	Osc.	18
Ved.	3	Lat.	3	Latv.	13 [loan]	Umb.	19
3	*pék <sup>w</sup> eti						

The variable inflection of the Latvian word strongly suggests that it is a Slavic loan (cf. Endzelīns 1923:635).

## 326 cow

Hitt.	1	Av.	2	Luv.	2	Goth.	7
Arm.	2	OCS	5	Lyc.	2	ON	2
Gk.	2	Lith.	5	TA	2	OHG	2
Alb.	3	OE	2	OPer.	2	Welsh	2
TB	2	OI	2	OPru.	6	Osc.	8
Ved.	2/4	Lat.	4	Latv.	2	Umb.	9
	2 *gʷ́ows 'bovine'			5 PBS	*kārv-		
	4 *wakéh₂						

## 327 darkness

Hitt.	1	Av.	6	Luv.	8	Goth.	12
Arm.	2 [loan] / 18	OCS	6/20	Lyc.	9	ON	13
Gk.	3	Lith.	6	TA	5	OHG	17/22
Alb.	4/19	OE	7	OPer.	10	Welsh	16
TB	5	OI	16/21	OPru.	11	Osc.	14
Ved.	6	Lat.	6	Latv.	6	Umb.	15
	5 PToch. *ørkəm-			16 PCelt.	*tem-el-		
	6 *téṁHs ~ *tm̥Hés-						

## 328 daughter

Hitt.	1	Av.	2	Luv.	2	Goth.	2
Arm.	2	OCS	2	Lyc.	2	ON	2
Gk.	2	Lith.	2	TA	2	OHG	2
Alb.	3	OE	2	OPer.	6	Welsh	8
TB	2	OI	4	OPru.	2	Osc.	2
Ved.	2	Lat.	5	Latv.	7	Umb.	9
	2 *dʰugh₂tér						

## 329 daughter-in-law

Hitt.	1	Av.	4	Luv.	7	Goth.	12
Arm.	2/16	OCS	2	Lyc.	8	ON	2/17
Gk.	2	Lith.	5	TA	9	OHG	2
Alb.	2	OE	2	OPer.	10	Welsh	13/18
TB	3	OI	6	OPru.	5	Osc.	14
Ved.	2	Lat.	2	Latv.	11	Umb.	15

2 \*snusós 5 PBalt. \*martī

## 330 door

Hitt.	1	Av.	2	Luv.	3	Goth.	2/7
Arm.	2	OCS	2	Lyc.	4	ON	2/7
Gk.	2	Lith.	2	TA	5	OHG	2
Alb.	2	OE	2	OPer.	2	Welsh	2
TB	2	OI	2	OPru.	6	Osc.	8
Ved.	2	Lat.	2/10/11	Latv.	2	Umb.	9

2 \*d<sup>h</sup>wór- ~ \*d<sup>h</sup>ur- 7 PGmc. \*hurdiz

The initial *d*- of the Vedic cognate reflects the influence of 'two'; the Iranian merger of \*d and \*d<sup>h</sup> has eliminated potential evidence for that lexical analogy.

## 331 drive

Hitt.	1	Av.	3	Luv.	6	Goth.	10
Arm.	2	OCS	9	Lyc.	8	ON	13/17
Gk.	4	Lith.	9/16	TA	11	OHG	10
Alb.	5	OE	10	OPer.	12	Welsh	14
TB	7	OI	3	OPru.	9	Osc.	15
Ved.	3	Lat.	3	Latv.	9	Umb.	3

3 \*h<sub>2</sub>égeti 10 PGmc. \*drībidi

9 PBS \*gen- ~ \*gun-

## 332 duck

Hitt.	7	Av.	6	Luv.	9	Goth.	14
Arm.	2	OCS	1	Lyc.	10	ON	1
Gk.	1	Lith.	1	TA	11	OHG	1
Alb.	3	OE	1	OPer.	12	Welsh	15
TB	4	OI	8	OPru.	1	Osc.	16
Ved.	5	Lat.	1	Latv.	13	Umb.	17

1 \*ánh<sub>2</sub>t-s ~ \*ṇh<sub>2</sub>t-

## 333 eight

Hitt.	1	Av.	2	Luv.	3	Goth.	2
Arm.	2	OCS	2	Lyc.	2	ON	2
Gk.	2	Lith.	2	TA	2	OHG	2
Alb.	2	OE	2	OPer.	4	Welsh	2
TB	2	OI	2	OPru.	2	Osc.	5
Ved.	2	Lat.	2	Latv.	2	Umb.	6
2 *oktōw							

## 334 elbow

Hitt.	1	Av.	6	Luv.	10	Goth.	14
Arm.	2	OCS	7	Lyc.	11	ON	17
Gk.	3	Lith.	7	TA	12	OHG	17
Alb.	4	OE	17	OPer.	13	Welsh	18
TB	5	OI	8	OPru.	7	Osc.	15
Ved.	6	Lat.	9	Latv.	7	Umb.	16
6 PIIr. *ar(a)tn-							
7 PBS *alku-							
17 PNWGmc. *alinabogō							

On the Indo-Iranian forms see Szemerényi 1966:196-9; it is not clear whether Old Persian *aršniš* ‘cubit’ still meant ‘elbow’ as well.

## 335 eyebrow

Hitt.	1	Av.	3	Luv.	7	Goth.	11
Arm.	2	OCS	3	Lyc.	8	ON	3
Gk.	3	Lith.	5	TA	3	OHG	3
Alb.	4	OE	3	OPer.	9	Welsh	12
TB	3	OI	3	OPru.	3	Osc.	13
Ved.	3	Lat.	6	Latv.	10	Umb.	14

3 \*h<sub>3</sub>b<sup>h</sup>ruH- and derivs.

The Old Prussian form appears to have been mangled by a German copyist.

## 336 father-in-law

Hitt.	1	Av.	4	Luv.	8	Goth.	4
Arm.	2/18	OCS	4	Lyc.	9	ON	14/19
Gk.	3	Lith.	6	TA	10	OHG	4
Alb.	4	OE	4	OPer.	11	Welsh	15
TB	5	OI	7	OPru.	12	Osc.	16
Ved.	4	Lat.	4	Latv.	13	Umb.	17

4 \*swékuros

The velar stop of the Old Church Slavonic form is surprising (cf. older Lithuanian *šēšuras*); very early borrowing from pre-Proto-Germanic is at least possible.

One of the Armenian words is a compound meaning ‘mother-in-law’s husband’.

## 337 field

Hitt.	1	Av.	6	Luv.	10	Goth.	2
Arm.	2/17/18	OCS	7	Lyc.	11	ON	2
Gk.	2	Lith.	8/20	TA	12	OHG	2
Alb.	3	OE	2	OPer.	13	Welsh	14/23
TB	4	OI	9	OPru.	8/21	Osc.	15
Ved.	5/19	Lat.	16	Latv.	8/22	Umb.	2/16

2 \*h₂égr̥os ‘pasture’

16 \*h₂er₃-wo-

8 \*lowkos ‘clearing’

On the Armenian form see Olsen 1999:30 with references. Tocharian A *miši* means ‘community’ and should be deleted from the wordlist.

## 338 finger

Hitt.	1	Av.	7	Luv.	12	Goth.	9
Arm.	2	OCS	8	Lyc.	13	ON	9
Gk.	3	Lith.	8	TA	5	OHG	9
Alb.	4	OE	9	OPer.	14	Welsh	15
TB	5	OI	10	OPru.	8	Osc.	16
Ved.	6	Lat.	11	Latv.	8	Umb.	17

5 PToch. \*prar-

8 PBS \*pirštas

9 PGmc. \*fingraz

## 339 fly [noun]

Hitt.	1	Av.	4	Luv.	7	Goth.	11
Arm.	2/14	OCS	2	Lyc.	8	ON	5
Gk.	2	Lith.	2	TA	9	OHG	5
Alb.	2	OE	5	OPer.	10	Welsh	6/15
TB	3	OI	6	OPru.	2	Osc.	12
Ved.	4	Lat.	2	Latv.	2	Umb.	13
2 *mus- and related forms				5 derivs. of PGmc. *fleuganą 'to fly'			
4 PIr. *makši-				6 PCelt. *kuli-			

The Armenian and Albanian cognates are somewhat divergent in shape, but that is not necessarily unexpected in the name of an economically unimportant animal. See e.g. Demiraj 1997:240 with references.

## 340 follow

Hitt.	1	Av.	3	Luv.	8	Goth.	12
Arm.	2	OCS	6	Lyc.	9	ON	7
Gk.	3/16	Lith.	3	TA	3	OHG	7
Alb.	4	OE	7	OPer.	10	Welsh	13
TB	5	OI	3	OPru.	11	Osc.	14
Ved.	3	Lat.	3	Latv.	3	Umb.	15
3 *sékʷetor				7 PNWGmc. *fulgēþi			

On the failure of schwa-rounding to occur in the TA form cf. Ringe 1996:150.

## 341 free

Hitt.	1	Av.	7	Luv.	12	Goth.	10
Arm.	2 [loan]	OCS	8	Lyc.	1	ON	10
Gk.	3	Lith.	9/18	TA	13	OHG	10
Alb.	4	OE	10	OPer.	14	Welsh	10
TB	5	OI	11	OPru.	15	Osc.	3
Ved.	6	Lat.	3	Latv.	16	Umb.	17
1 PAnat. *arawos				10 *priHós 'beloved' and cpd.			
3 *h₁léwdʰeros							

The startling shift of 'beloved' to 'free' might suggest loan-translation reflecting very early contact between Celtic and Germanic (cf. Feist 1939 s.v. *freis* with references).

The distribution of the Mediterranean word (state 3) might also be a contact phenomenon of some sort.

## 342 furrow

Hitt.	1	Av.	7	Luv.	13	Goth.	18
Arm.	2	OCS	8	Lyc.	14	ON	19
Gk.	3	Lith.	9	TA	15	OHG	10
Alb.	4 [loan] / 22	OE	10	OPer.	16	Welsh	10/23
TB	5	OI	11	OPru.	17	Osc.	20
Ved.	6	Lat.	12	Latv.	9	Umb.	21
9 PEBalt. *vagā				10 *pr̥k-			

## 343 go

Hitt.	2	Av.	1/9	Luv.	1	Goth.	12/5
Arm.	3/13	OCS	1	Lyc.	4	ON.	11/12/5
Gk.	1/14	Lith.	1	TA	1	OHG	10/11/12
Alb.	7/15	OE	10/11/12	OPer.	1	Welsh	6
TB	1	OI	8	OPru.	1	Osc.	1
Ved.	1/9	Lat.	1	Latv.	1	Umb.	1
1 *h <sub>1</sub> éyti				10 PWGmc. *gai-			
5 PGmc. *līþidi				11 PGmc. *faridi			
9 *gʷmskéti 'walk'				12 PGmc. *gangidi			

## 344 goat

Hitt.	1	Av.	6	Luv.	11	Goth.	8
Arm.	2	OCS	7	Lyc.	12	ON	8
Gk.	3	Lith.	4	TA	5	OHG	8/15
Alb.	4	OE	8	OPer.	13	Welsh	9
TB	5	OI	9	OPru.	4	Osc.	16
Ved.	4	Lat.	10	Latv.	14 [loan]	Umb.	10
4 *ág-				9 PCelt. *gabros			
5 PToch. *asə				10 PItal. *kapros			
8 PGmc. *gait-							

We have accepted the usual etymology of the Albanian word, with some hesitation; see Demiraj 1997:160 for discussion, and note that the alternative would assign state 2 (\*ayg-) to Albanian.

## 345 gold

Hitt.	1	Av.	6	Luv.	9	Goth.	15
Arm.	2	OCS	14	Lyc.	10	ON	15
Gk.	3	Lith.	7	TA	5	OHG	15
Alb.	4 [loan] / 17	OE	15	OPer.	6	Welsh	11[loan]
TB	5	OI	8 [loan]	OPru.	7	Osc.	12
Ved.	6	Lat.	7	Latv.	16	Umb.	13
5 PToch.	*w <sup>y</sup> əsa			7	*awsom		
6 PIr.	*z <sup>h</sup> lanyam			15 PGmc.	*gulþa		

## 346 goose

Hitt.	1	Av.	6	Luv.	8	Goth.	12
Arm.	2	OCS	3	Lyc.	9	ON	3
Gk.	3	Lith.	3	TA	10	OHG	3
Alb.	4	OE	3	OPer.	11	Welsh	7
TB	5	OI	7	OPru.	3	Osc.	13
Ved.	3	Lat.	3	Latv.	3	Umb.	14
3	*g <sup>h</sup> ans-			7	PCelt. *gigdos (Pedersen 1909:102-3)		

The initial velar of the Old Church Slavonic form is surprising, in view of the initial palatal in all the Baltic forms; early borrowing from Germanic is at least possible.

## 347 grain

Hitt.	1	Av.	6	Luv.	13	Goth.	9
Arm.	2	OCS	7	Lyc.	14	ON	9
Gk.	3	Lith.	6/8	TA	5	OHG	9
Alb.	4/19	OE	9	OPer.	15	Welsh	11
TB	5/20	OI	10/11	OPru.	9/16	Osc.	16
Ved.	6/21	Lat.	12	Latv.	8/22	Umb.	17
5	PToch. *w <sup>y</sup> əsarë			9	*grh <sub>2</sub> nóm		
6	*yéwos			11	PCelt. *itu		
8	PEBalt. *graud- ~ *grūd-						

## 348 grind

Hitt.	1	Av.	6	Luv.	8	Goth.	1
Arm.	2	OCS	1	Lyc.	9	ON	1
Gk.	2	Lith.	1	TA	10	OHG	1
Alb.	3	OE	7	OPer.	11	Welsh	1
TB	4	OI	1	OPru.	12	Osc.	13
Ved.	5	Lat.	1	Latv.	1	Umb.	1
1 *molh₂- ~ *melh₂-				2 *h₂elh₁- (*alh₁- ?)			

## 349 half

Hitt.	1	Av.	7	Luv.	13	Goth.	10
Arm.	2	OCS	8	Lyc.	14	ON	10
Gk.	3	Lith.	9	TA	15	OHG	10
Alb.	4	OE	10	OPer.	16	Welsh	18
TB	5	OI	11	OPru.	17	Osc.	19
Ved.	6	Lat.	12	Latv.	9	Umb.	20
9 PE Balt. *pus-				10 PGmc. *halbaz			

## 350 have

Hitt.	1	Av.	7	Luv.	13	Goth.	10/18
Arm.	2	OCS	8	Lyc.	14	ON	10/18
Gk.	3	Lith.	9	TA	15	OHG	10
Alb.	4	OE	10	OPer.	16	Welsh	19
TB	5	OI	11	OPru.	9	Osc.	12
Ved.	6	Lat.	12	Latv.	17	Umb.	12
9 PBalt. *turi				12 PItal. *habēt			
10 PGmc. *habaiþi				18 PGmc. *aih, *aig-			

## 351 hide

Hitt.	1/18	Av.	6	Luv.	11	Goth.	14
Arm.	2/19	OCS	7	Lyc.	12	ON	9/14/25
Gk.	3	Lith.	8	TA	5	OHG	9/26
Alb.	4	OE	9/10/20	OPer.	6	Welsh	9/15
TB	5	OI	9/21	OPru.	13	Osc.	16
Ved.	6	Lat.	9/22/23	Latv.	8/24	Umb.	17
5 PToch. *tpukəsk- (*tukəsk- ?)				9 *kéleti and derivs.			

6 PIIr. *gūžh-	14 PGmc. *filhidi (*felha-)
8 PEBal. *slepja	

## 352 honey

Hitt. 1	Av. 4	Luv. 1	Goth. 1
Arm. 1	OCS 2	Lyc. 6	ON 5
Gk. 1	Lith. 2	TA 7	OHG 5
Alb. 1	OE 5	OPer. 8	Welsh 1
TB 2	OI 1	OPru. 2	Osc. 9
Ved. 2/3	Lat. 1	Latv. 2	Umb. 10
1 *mélit		5 PNWGmc. *hunaga	
2 *méd <sup>h</sup> u ‘sweet’ (neut.)			

The meaning of state 2 is validated by the survival of an adj. *mádhus* ‘sweet’ in Vedic, though the specialization of the neut. to refer to honey (and alcoholic drinks: cf. OE *meodu* ‘mead’, Gk. μέθυ ‘wine’, etc.) was early and/or widespread.

## 353 horse

Hitt. 1	Av. 3	Luv. 3	Goth. 3
Arm. 2	OCS 5	Lyc. 3	ON 7/13
Gk. 3	Lith. 6	TA 3	OHG 7
Alb. 4 [loan]	OE 7	OPer. 3	Welsh 10/14
TB 3	OI 3	OPru. 8	Osc. 11
Ved. 3	Lat. 3	Latv. 9	Umb. 12
3 *ékwos		7 PNWGmc. *hrossa	

The Greek word has been severely deformed, but still seems to belong with the cognate set coded as 3. Note that its initial *h*-, at least, is a very recent innovation, to judge from names like Ἄλκιππος (not “Ἄλχιππος”).

Welsh *ceffyl* is a Latin loan (though *march* is a native word).

## 354 house

Hitt. 1	Av. 12	Luv. 1	Goth. 6/15
Arm. 2	OCS 2	Lyc. 1	ON 8
Gk. 3	Lith. 7	TA 5	OHG 8
Alb. 4 [loan]	OE 8	OPer. 12	Welsh 9
TB 5	OI 9	OPru. 7	Osc. 10
Ved. 2/13	Lat. 2	Latv. 2/14	Umb. 11

1 PAnat. *pér ~ *pṛn-	8 PNWGmc. *hūsa
2 *dom-	9 PCelt. *tegos (← ‘roof’)
5 PToch. *wostə (< *wāstu ‘settlement’)	12 PIr. *dmānam
7 PBalt. *butan	

## 355 hundred

Hitt. 1	Av. 3	Luv. 5	Goth. 3
Arm. 2	OCS 3	Lyc. 6	ON 3
Gk. 3	Lith. 3	TA 3	OHG 9
Alb. 4 [loan]	OE 3	OPer. 7	Welsh 3
TB 3	OI 3	OPru. 8	Osc. 10
Ved. 3	Lat. 3	Latv. 3	Umb. 11

3 \*ḱm̥tóm and derivs.

The first vowel of the OCS word is unexpected; a loan from some Iranian language is at least possible.

## 356 jaw

Hitt. 1	Av. 2	Luv. 9	Goth. 14
Arm. 2	OCS 5	Lyc. 10	ON 15
Gk. 2	Lith. 2	TA 2	OHG 2
Alb. 3	OE 6/18	OPer. 11	Welsh 2/19
TB 4	OI 7	OPru. 12	Osc. 16
Ved. 2	Lat. 8	Latv. 13	Umb. 17

2 \*ǵénus ~ \*ǵénu- and derivs.

## 357 join

Hitt. 1	Av. 6	Luv. 10	Goth. 15
Arm. 2 [loan]	OCS 7	Lyc. 11	ON 16/21
Gk. 3	Lith. 6	TA 5	OHG 8/22
Alb. 4/20	OE 8	OPer. 12	Welsh 17/23
TB 5	OI 9	OPru. 13	Osc. 18
Ved. 6	Lat. 6	Latv. 14	Umb. 19

5 PToch. \*tṣuwəsk-

8 PWGmc. \*fōgībi

6 \*yewg- (pres. \*yunégti)

The Armenian verb is derived from a noun *zoygkʰ* ‘pair’ borrowed from Syriac, which in turn borrowed the word from Greek; see Olsen 1999:931 and (on the derivational

pattern) 15-7.

358 king

Hitt.	1	Av.	7	Luv.	11	Goth.	14
Arm.	2/18	OCS	8 [loans]	Lyc.	11	ON	10
Gk.	3	Lith.	9 [loan]	TA	5	OHG	10
Alb.	4	OE	10	OPer.	7	Welsh	15
TB	5	OI	6	OPru.	12 [loan]	Osc.	16
Ved.	6	Lat.	6	Latv.	13/19 [loans]	Umb.	17
5	PToch. *wəlo, *lant-			10	PNWGmc. *kuningaz		
6	*h <sub>3</sub> rēg̑s			11	PLuv. *Hantowot-		
7	PIr. *xšayah and deriv.						

359 knot

Hitt.	1	Av.	7	Luv.	13	Goth.	18
Arm.	2	OCS	8	Lyc.	14	ON	10
Gk.	3	Lith.	9	TA	15	OHG	10
Alb.	4/22	OE	10	OPer.	16	Welsh	19
TB	5	OI	11	OPru.	17	Osc.	20
Ved.	6	Lat.	12	Latv.	9	Umb.	21
9	derivs. of *mezg- ‘tie’			10	PNWGmc. *knu...		

The Germanic words appear to reflect sound symbolism; we have coded them together because they appear to share enough phonological material to reflect common ancestry, but they could be independent developments.

360 lamb [with parallel development]

Hitt.	1	Av.	5	Luv.	9	Goth.	8/17
Arm.	2/15	OCS	6	Lyc.	10	ON	8
Gk.	2	Lith.	7/16	TA	11	OHG	8
Alb.	3	OE	8	OPer.	12	Welsh	6
TB	4	OI	6	OPru.	7	Osc.	13
Ved.	2	Lat.	6	Latv.	7	Umb.	14
2	*wṛh₁én-			7	PBalt. *erj-		
6	*agʷnós			8	PGmc. *lambaz, *lambiz-		

The preform of state 6 is not secure; the Celtic forms seem to demand \*g<sup>wh</sup>, while the others demand \*g<sup>w</sup>. Note that the same word appears in Greek (though not in Classical

Attic, the basis of our coding); thus it seems clear that polymorphism or parallel development is widespread in the tree.

### 361 lead

Hitt.	1	Av.	2/8	Luv.	4	Goth.	12
Arm.	3/13/14	OCS	8	Lyc.	5	ON	11
Gk.	3/15	Lith.	8	TA	3	OHG	11
Alb.	6/16	OE	11	OPer.	2	Welsh	7/17
TB	3	OI	8	OPru.	8	Osc.	9
Ved.	2	Lat.	12	Latv.	8	Umb.	10
2 PIIr.	*náya-			11 PNWGmc.	*laidīþi ‘lead’		
3	*h₂égeti ‘drive’			12	*dékveti ‘lead’		
	8 *wéðʰeti ‘lead’						

The meaning ‘drive’ is validated for state 3 by the fact that the root \*h₂eǵ- is the basis for a derivative meaning \*‘pasture’ → ‘field’ even in Greek, the most archaic language in which the verb means ‘lead’ (see characters 307 and 337). That 12 was the inherited state in Germanic is demonstrated by fossilized compounds in the West Germanic languages (e.g. OE *heretoga*, OHG *herizogo* ‘army-leader’).

The distribution of states 8 and 12 is incompatible with all the better trees, since it groups Italic and Germanic together and Celtic and Balto-Slavic together.

### 362 leave

Hitt.	1	Av.	2	Luv.	7	Goth.	3/20
Arm.	2/16	OCS	5	Lyc.	8	ON	3/21/22
Gk.	2	Lith.	2	TA	4	OHG	3
Alb.	15	OE	3	OPer.	9	Welsh	12
TB	4	OI	6/18	OPru.	10	Osc.	13
Ved.	2/17	Lat.	2	Latv.	11/19	Umb.	14
2 *leykʷ- (pres. *linékʷti)				4 PToch.	*arsə(sə)		
3 PGmc. *lētidi							

Though the Old Irish word resembles set 2, it is difficult to account for its root vocalism and stem vowel on the hypothesis that it is a cognate of that set. The OCS and Latvian compounds also resemble one another, but the stem formation is different; it seems likely that the Latvian word is a “loan translation” based on Russian.

363 lick

Hitt.	1	Av.	2	Luv.	5	Goth.	2
Arm.	2	OCS	2	Lyc.	6	ON	2
Gk.	2	Lith.	2	TA	7	OHG	2
Alb.	3	OE	2	OPer.	8	Welsh	2
TB	4	OI	2	OPru.	9	Osc.	10
Ved.	2	Lat.	2	Latv.	2	Umb.	11

## 2 \*léyg<sup>h</sup>ti and derivs.

The inherited verb has been deformed by sound symbolism in many daughters; for example, that is probably the source of the Old Norse initial *s-* (see e.g. Feist 1939:91, de Vries 1962 s.v. *sleikja*).

364 lift

Hitt.	1	Av.	8	Luv.	13	Goth.	11
Arm.	2	OCS	9/21/22	Lyc.	14	ON	11/23/24
Gk.	3	Lith.	10	TA	5	OHG	11
Alb.	4	OE	11	OPer.	15	Welsh	17
TB	5/20	OI	12	OPru.	16	Osc.	18
Ved.	7	Lat.	6	Latv.	10	Umb.	19
5 PToch. *musnatar				11 PGmc. *habidi (*habja-)			
10 PEBalt. *kelja							

365 light

Hitt.	1	Av.	1	Luv.	5	Goth.	1
Arm.	1	OCS	4	Lyc.	6	ON	1
Gk.	2	Lith.	4	TA	1/16	OHG	1
Alb.	3	OE	1	OPer.	7	Welsh	1
TB	1/12	OI	1	OPru.	8	Osc.	10
Ved.	1/13/14	Lat.	1/15	Latv.	9	Umb.	11
1 derivs. of *lewk-				4 derivs. of PBS *šveit-			

## 366 lip

Hitt.	1	Av.	6	Luv.	11	Goth.	9
Arm.	2	OCS	6	Lyc.	12	ON	9
Gk.	3	Lith.	7	TA	5	OHG	8
Alb.	4	OE	8/9	OPer.	13	Welsh	14
TB	5	OI	10	OPru.	9	Osc.	15
Ved.	6	Lat.	8	Latv.	7	Umb.	16
5 PToch.	*lŷmēnē (dual)			8 *leb-			
6 *austh₂o-	(*ou-?)			9 *wer-			
7 PEbalt.	*lūpā						

The forms belonging to state 9 exhibit a variety of suffixes which do not match.

Though the overt polymorphism is confined to Old English, the distribution of the states shared by OE is striking, including not only Germanic but also Latin and Old Prussian. Parallel development is possible (cf. Hitt. *lilipai* ‘(s)he licks’, which suggests that state 8 might represent a verb root), but the situation remains unclear.

## 367 livestock

Hitt.	1	Av.	6	Luv.	10	Goth.	16
Arm.	2 [loan]	OCS	7	Lyc.	11	ON	6
Gk.	3/19	Lith.	8/20	TA	12	OHG	6
Alb.	4	OE	6	OPer.	13	Welsh	17
TB	5	OI	9/21	OPru.	14	Osc.	18
Ved.	6	Lat.	6	Latv.	15	Umb.	6
6 *péku(s)							

## 368 make

Hitt.	1	Av.	6	Luv.	1	Goth.	14/17
Arm.	2/15	OCS	7	Lyc.	1	ON	13
Gk.	3	Lith.	8	TA	1	OHG	14/9/18
Alb.	4	OE	14/9	OPer.	6/16	Welsh	10
TB	5	OI	10	OPru.	12	Osc.	11
Ved.	6	Lat.	11	Latv.	8	Umb.	11
1 *h <sub>1</sub> yeh <sub>1</sub> -				10 PCelt.	*gnī-		
6 PIIr.	*kṛnáuti			11 PItal.	*fakit (*fakyo-)		
8 PEbalt.	*darā			14 *wṛgyéti			
9 PWGmc.	*makōþi						

On the lexical analogies that have deformed the Welsh word see Pedersen 1913:544-6, Schumacher 2004:345-6.

369 middle

Hitt.	1	Av.	2	Luv.	6	Goth.	2
Arm.	2	OCS	4	Lyc.	7	ON	2
Gk.	2	Lith.	5	TA	3	OHG	2
Alb.	2	OE	2	OPer.	8	Welsh	10/11 [loan]
TB	3	OI	2	OPru.	9	Osc.	2
Ved.	2	Lat.	2	Latv.	5	Umb.	12
2 *méd <sup>h</sup> yo <sub>s</sub> and derivs.		5 PEBalt. *vid-					
3 PToch. *yəwarcəka-							

370 milk

Hitt.	1	Av.	6/19	Luv.	8	Goth.	17
Arm.	2	OCS	7 [loan]	Lyc.	9	ON	17
Gk.	3	Lith.	15	TA	5	OHG	17
Alb.	4	OE	17	OPer.	10	Welsh	12 [loan]
TB	5	OI	5	OPru.	11	Osc.	13
Ved.	6/18	Lat.	16	Latv.	15	Umb.	14
5 *h <sub>2</sub> melg- ‘to milk’ and derivs.		15 PEBalt. *pienas					
6 PIIr. *páyas		17 PGmc. *meluk-					

The shapes of the Latin and Greek words do not match; they could easily be loans from some non-IE language (Porzig 1954:132).

OCS *mlěko* MUST be a loan from Germanic: not only does it exhibit a velar stop in place of an expected palatal, but the stop has been devoiced by Grimm’s Law!

371 mother-in-law

Hitt.	1	Av.	5	Luv.	8	Goth.	2
Arm.	2/18	OCS	2	Lyc.	9	ON	14/20
Gk.	3	Lith.	6/19	TA	10	OHG	2
Alb.	2	OE	2	OPer.	11	Welsh	15
TB	4	OI	7	OPru.	12	Osc.	16
Ved.	2	Lat.	2	Latv.	13	Umb.	17
2 *swekrúh <sub>2</sub>							

## 372 mouse

Hitt.	1	Av.	4	Luv.	7	Goth.	12
Arm.	2	OCS	2	Lyc.	8	ON	2
Gk.	2	Lith.	5	TA	9	OHG	2
Alb.	2	OE	2	OPer.	10	Welsh	6
TB	3	OI	6	OPru.	11	Osc.	13
Ved.	2	Lat.	2	Latv.	5	Umb.	14
2 *mūs		6 PCelt.	*lukūs, *lukot- (Joe Eska, p.c.; cf. Pedersen 5 PEBalt. *pelē			1909:376, Thurneysen 1946:206)	

The Tocharian B word does not belong with set 2 (Adams 1999 s.v. *maścītse*).

## 373 (finger)nail

Hitt.	1	Av.	5	Luv.	6	Goth.	9
Arm.	2	OCS	13	Lyc.	7	ON	15
Gk.	3	Lith.	14	TA	12	OHG	15
Alb.	4	OE	15	OPer.	8	Welsh	16
TB	12	OI	16	OPru.	13	Osc.	10
Ved.	3	Lat.	3	Latv.	14	Umb.	11
3 *h <sub>3</sub> nog <sup>h</sup> (w)-		14 PEBalt.	*nagas				
12 PToch. *mēkuwa (pl.)		15 PGmc.	*naglaz				
13 PBS *nagutis		16 PCelt.	*ang <sup>w</sup> īnā				

On the Armenian form see Olsen 1999:138; we reject the connection.

## 374 naked

Hitt.	1	Av.	1	Luv.	4	Goth.	13
Arm.	1	OCS	12	Lyc.	5	ON	13
Gk.	1	Lith.	12	TA	6	OHG	13
Alb.	2	OE	13	OPer.	7	Welsh	14
TB	3	OI	14	OPru.	8	Osc.	10
Ved.	1	Lat.	1	Latv.	9/15	Umb.	11
1 *neg <sup>w</sup> nós and derivs.		13 PGmc.	*nak <sup>w</sup> adaz				
12 PBS *nōgas		14 PCelt.	*noktos				

Many cognates of this set have been irregularly reformed (for tabu reasons?).

## 375 navel

Hitt.	1	Av.	3	Luv.	8	Goth.	12
Arm.	2	OCS	6	Lyc.	9	ON	16
Gk.	3	Lith.	7	TA	10	OHG	16
Alb.	4	OE	16	OPer.	11	Welsh	13
TB	5	OI	3	OPru.	3	Osc.	14
Ved.	3	Lat.	3	Latv.	3	Umb.	15

3 \*h<sub>3</sub>nob<sup>h</sup>- and derivs. (most of which are unique)

16 PNWGmc. \*nabVlan-

## 376 nine

Hitt.	1	Av.	2	Luv.	3	Goth.	2
Arm.	2	OCS	5	Lyc.	2	ON	2
Gk.	2	Lith.	5	TA	2	OHG	2
Alb.	2	OE	2	OPer.	2	Welsh	2
TB	2	OI	2	OPru.	2	Osc.	4
Ved.	2	Lat.	2	Latv.	5	Umb.	2
2 *(h <sub>1</sub> )néwŋ		5 initial *d- by lexical analogy with 'ten'					

## 377 now

Hitt.	1	Av.	1/12	Luv.	1	Goth.	1
Arm.	2	OCS	1	Lyc.	5	ON	1
Gk.	1	Lith.	3	TA	6	OHG	1
Alb.	1/14	OE	1	OPer.	12	Welsh	9
TB	1/15	OI	4	OPru.	7	Osc.	10
Ved.	1/13	Lat.	1	Latv.	8/16	Umb.	11

1 \*nú and derivs. (most unique or probably parallel)

12 PIr. \*nūram (< PIIr. \*nūnám with dissimilation)

## 378 orphan

Hitt.	1	Av.	6	Luv.	11	Goth.	17
Arm.	2	OCS	7	Lyc.	12	ON	18
Gk.	2	Lith.	8	TA	13	OHG	19
Alb.	3	OE	9	OPer.	14	Welsh	20
TB	4	OI	10	OPru.	15	Osc.	21
Ved.	5	Lat.	2	Latv.	16	Umb.	22

2 \*orb<sup>h</sup>os

## 379 ox

Hitt.	1	Av.	8	Luv.	7	Goth.	14
Arm.	2	OCS	4	Lyc.	9	ON	14
Gk.	8	Lith.	5	TA	14	OHG	14
Alb.	3	OE	14	OPer.	10	Welsh	14/13
TB	14	OI	6	OPru.	11	Osc.	15
Ved.	8	Lat.	8	Latv.	12	Umb.	16
8 *gʷóws 'bovine'				14 *uksén 'bull'			

## 380 pig

Hitt.	1	Av.	3	Luv.	8	Goth.	14
Arm.	2	OCS	14	Lyc.	9	ON	14
Gk.	3/15	Lith.	5	TA	10	OHG	14
Alb.	4/16	OE	14	OPer.	11	Welsh	6
TB	3	OI	6	OPru.	14	Osc.	13
Ved.	3	Lat.	3/7	Latv.	12	Umb.	3/7
3 *sús				6 PCelt. *mokkus			
7 *pórkos				14 *su-īno-			

Both Albanian words are of uncertain etymology; cf. Demiraj 1997:131-2, 397-8.

## 381 plow

Hitt.	1	Av.	6	Luv.	7	Goth.	3
Arm.	2	OCS	3	Lyc.	8	ON	3
Gk.	3	Lith.	3	TA	9	OHG	3
Alb.	4	OE	3	OPer.	10	Welsh	3
TB	5	OI	3	OPru.	3	Osc.	11
Ved.	6	Lat.	3	Latv.	3	Umb.	12
3 *h₂erh₃-, pres. *h₂éryeti				6 *kʷélsti 'make a furrow'			

The assignment of state 3 to Old Prussian is uncertain, since only the noun for 'plow' is attested in that language. However, that does not affect the shape of the tree, since the alternative is to assign it a unique state.

## 382 pour

Hitt.	1/15/16	Av.	5	Luv.	1	Goth.	14
Arm.	2	OCS	6	Lyc.	8	ON	10
Gk.	3	Lith.	6/17	TA	3	OHG	14
Alb.	4	OE	14	OPer.	9	Welsh	11
TB	3	OI	7	OPru.	6	Osc.	12
Ved.	5	Lat.	14	Latv.	6	Umb.	13
1	PAnat. *laHu- (Melchert 1994:72-3)			6	*leyH-		
3	*ǵhew-			14	“extended” root *ǵhewd-		
5	PIIr. *sinčáti						

## 383 put

Hitt.	14	Av.	1	Luv.	12	Goth.	5/6
Arm.	15	OCS	5/17/18	Lyc.	12/20	ON	5/6
Gk.	1	Lith.	1/19	TA	13	OHG	5/6/21
Alb.	2	OE	5/6	OPer.	1	Welsh	4/22
TB	13	OI	7	OPru.	11	Osc.	16
Ved.	1	Lat.	8	Latv.	9	Umb.	10
1	pres. *d <sup>h</sup> éd <sup>h</sup> eh <sub>1</sub> ti			12	PLuv. *tuwV-		
5	*log <sup>h</sup> éyeti ‘cause to lie down’			13	PToch. *tas-		
6	*sodéyeti ‘cause to sit down’						

The meaning of the Umbrian word listed is probably ‘put’ (cf. Vetter 1953:248), but other interpretations are possible (cf. e.g. Ernout 1961:125, Ancillotti and Cerri 1996: 391); in any case Umbrian does not exhibit a cognate of any term in any of the other languages.

## 384 remember

Hitt.	1	Av.	6	Luv.	7	Goth.	3/14
Arm.	2/13	OCS	3	Lyc.	8	ON	3/15
Gk.	3	Lith.	3	TA	5	OHG	11
Alb.	4 [loan]	OE	3	OPer.	9	Welsh	3
TB	5	OI	3	OPru.	10	Osc.	3
Ved.	6	Lat.	3	Latv.	3	Umb.	12
3	*men- (pf. *memóne) and derivs.			6	PIIr. *smáratí		
5	PToch. *epiyacə kəllaşşə(şə) ‘call to mind’						

## 385 roof

Hitt.	1	Av.	7	Luv.	9	Goth.	14
Arm.	2/21	OCS	8/26	Lyc.	10	ON	18
Gk.	3/22/23	Lith.	17	TA	11	OHG	18
Alb.	4/24	OE	18/27	OPer.	12	Welsh	19
TB	5/25	OI	19	OPru.	17	Osc.	15
Ved.	6	Lat.	20	Latv.	13	Umb.	16
	17 PBalt. *stāgas			19 PCelt. *togiā			
	18 PNWGmc. *þakā						

## 386 row

Hitt.	1	Av.	7	Luv.	10	Goth.	15
Arm.	2	OCS	8	Lyc.	11	ON	20
Gk.	3	Lith.	9	TA	12	OHG	16
Alb.	4	OE	20	OPer.	13	Welsh	17 [loan]
TB	5	OI	20	OPru.	14	Osc.	18
Ved.	6	Lat.	21	Latv.	9/22	Umb.	19
	9 PEBalt. *irja			20 o-grade *h <sub>1</sub> roh <sub>1</sub> -			

## 387 send

Hitt.	1/20	Av.	7	Luv.	13	Goth.	10
Arm.	2/21	OCS	8	Lyc.	14	ON	10
Gk.	3	Lith.	9	TA	5	OHG	10
Alb.	4	OE	10	OPer.	6	Welsh	17
TB	5	OI	11	OPru.	15	Osc.	18
Ved.	6	Lat.	12	Latv.	16/22	Umb.	19
	5 PToch. *luwa-			10 PGmc. *sandīþi			
	6 PIIr. *iš-						

## 388 seven

Hitt.	1	Av.	1	Luv.	2	Goth.	7
Arm.	1	OCS	1	Lyc.	3	ON	7
Gk.	1	Lith.	1	TA	1	OHG	7
Alb.	1	OE	7	OPer.	4	Welsh	1
TB	1	OI	1	OPru.	1	Osc.	5
Ved.	1	Lat.	1	Latv.	1	Umb.	6

1 \*septm<sup>o</sup>

7 → \*septm̥t (by lexical analogy with 'ten') > \*sep̥m̥t > PGmc. \*sebun

(cf. Szemerényi 1960:35, 127 fn. 53, Stiles 1985-6, part 3, pp. 6-7)

389 shadow

Hitt.	1	Av.	3	Luv.	8	Goth.	5
Arm.	2/17	OCS	3	Lyc.	9	ON	6
Gk.	3	Lith.	4/18	TA	10	OHG	5/6
Alb.	3	OE	5/6	OPer.	11	Welsh	16
TB	3	OI	16	OPru.	12	Osc.	14
Ved.	3	Lat.	7	Latv.	13/19	Umb.	15

3 \*skéh<sub>2</sub>ih<sub>2</sub>, \*skh<sub>2</sub>iéh<sub>2</sub>- (cf. Ringe 1996:18-20)

5 PGmc. \*skaduz

6 PGmc. \*skuwwan- (cf. Goth. *skuggwa* 'mirror')

16 PCelt. \*skātom

390 sheep

Hitt.	1/17	Av.	7	Luv.	6	Goth.	13
Arm.	2	OCS	6	Lyc.	6	ON	14
Gk.	3	Lith.	6	TA	5	OHG	8
Alb.	4	OE	8	OPer.	10	Welsh	15
TB	5/6	OI	9	OPru.	11	Osc.	16
Ved.	6	Lat.	6	Latv.	12	Umb.	6
5 derivs. of PToch. *śaw- 'live'				8 PWGmc. *skāp			
6 *h₂ówis (Kimball 1987:185, 189)							

391 ship

Hitt.	1	Av.	3	Luv.	11	Goth.	9
Arm.	2 [loan]	OCS	7	Lyc.	12	ON	9
Gk.	3/17	Lith.	8	TA	5/6	OHG	9
Alb.	4	OE	9	OPer.	3	Welsh	10
TB	5/6	OI	3/10	OPru.	13	Osc.	15
Ved.	3	Lat.	3	Latv.	14	Umb.	16
3 *nehu				9 PGmc.	*skipa		

5 RTach

9 PGmc. \*skipa

51 Toch. Opt-

10 PIns.Celt. \*longā

6 PLoch. "kōlm-

The Armenian word is probably an Iranian loan, since it is inflected as an a-stem (Olsen 1999:896). On the Celtic forms see McCone 1993:245-8.

On the preform of state 3 see Szemerényi 1956:185-6 with references; however, unless and until the absence of \*s- can be explained, the derivation of this word from \*sneh₂- ‘bathe, swim’ (*ibid.* p. 186, fn. 1 with references) remains doubtful.

### 392 shoulder

Hitt.	1/15	Av.	4/16	Luv.	10	Goth.	2
Arm.	2	OCS	5/17	Lyc.	11	ON	7
Gk.	2	Lith.	6	TA	2	OHG	7/8
Alb.	3	OE	7/8	OPer.	12	Welsh	13
TB	2	OI	9/18	OPru.	6	Osc.	14
Ved.	2	Lat.	2	Latv.	5	Umb.	2
2 *ōmsos / *ómsos		7 PNWGmc. *ahslu					
5 PBS *pletjan		8 PWGmc. *skuldru					
6 PBalt. *petijas (vel sim.)							

The preform of state 2 is an unsolved problem, though the words are clearly cognate.

On the difficult problems surrounding the Albanian form see Demiraj 1997:155-6.

### 393 silver

Hitt.	1	Av.	3	Luv.	7	Goth.	12
Arm.	2 [loan]	OCS	6	Lyc.	8	ON	12
Gk.	10	Lith.	11	TA	5	OHG	12
Alb.	4 [loan]	OE	12	OPer.	3	Welsh	3
TB	5	OI	3	OPru.	13	Osc.	3
Ved.	3	Lat.	3	Latv.	14	Umb.	9
3 *h₂rgntóm		12 PGmc. *silubrā					
5 PToch. *nəkənt- (*ñ-)							

The similarity of the Germanic and Balto-Slavic words probably reflects multiple borrowing of a non-IE word and/or repeated borrowing between IE languages. Note that even the Tocharian forms (state 5) do not match perfectly.

## 394 sister

Hitt.	1	Av.	2	Luv.	1	Goth.	2
Arm.	2	OCS	2	Lyc.	5	ON	2
Gk.	3	Lith.	2	TA	2	OHG	2
Alb.	4	OE	2	OPer.	6	Welsh	2
TB	2	OI	2	OPru.	2	Osc.	8
Ved.	2	Lat.	2	Latv.	7	Umb.	9

1 PAnat. \*negos and deriv.

2 \*swéśōr

## 395 sister-in-law

Hitt.	1	Av.	7	Luv.	11	Goth.	16
Arm.	2	OCS	3	Lyc.	12	ON	17
Gk.	3	Lith.	8/22	TA	13	OHG	18
Alb.	4	OE	9	OPer.	14	Welsh	19
TB	5	OI	10	OPru.	15	Osc.	20
Ved.	6	Lat.	3	Latv.	8	Umb.	21

3 \*ǵlHōw- (???)

8 PEBalt. \*svainē

The preform of state 3 is an unsolved (and probably unsolvable) problem.

## 396 six

Hitt.	1	Av.	2	Luv.	3	Goth.	2
Arm.	2	OCS	2	Lyc.	4	ON	2
Gk.	2	Lith.	2	TA	2	OHG	2
Alb.	2	OE	2	OPer.	5	Welsh	2
TB	2	OI	2	OPru.	2	Osc.	6
Ved.	2	Lat.	2	Latv.	2	Umb.	7

2 \*swéks

## 397 son

Hitt.	1	Av.	1/3	Luv.	7	Goth.	3
Arm.	2/12	OCS	3	Lyc.	8	ON	3
Gk.	11	Lith.	3	TA	11	OHG	3
Alb.	4	OE	3	OPer.	1	Welsh	5
TB	11	OI	5	OPru.	3	Osc.	1
Ved.	1/3	Lat.	6	Latv.	9	Umb.	10

1 \*putlós

5 PCelt. \*makʷkʷos

3 \*suHnús

11 \*suHyús

The meaning ‘offspring’ reconstructable for states 3 and 11 suggests parallel development; thus the Indo-Iranian polymorphism may or may not extend through many internal nodes, as the distribution of states suggests.

## 398 son-in-law

Hitt.	1	Av.	17	Luv.	7	Goth.	13
Arm.	2	OCS	18	Lyc.	8	ON	13
Gk.	3	Lith.	18	TA	9	OHG	5
Alb.	3	OE	5	OPer.	10	Welsh	14/15
TB	4	OI	6	OPru.	11	Osc.	16
Ved.	17	Lat.	3	Latv.	12	Umb.	19
3 *ǵmṛós (vel sim.)				17 PIr. *ǵāmātar-			
5 PWGmc. *aiþam				18 PBS *žent-			
13 PGmc. *mēgaz ‘kinsman’							

For discussion of these difficult forms see e.g. Frisk 1960 s.v. *γαμβρός*. We suggest that the Latin and Balto-Slavic forms have been influenced by \*ǵenh<sub>1</sub>- ‘be born’ and/or \*ǵneh<sub>3</sub>- ‘recognize’; the Latvian word, however, has either been replaced by a participle of the latter root or has been so thoroughly remodelled that assignment of a unique state is advisable in any case.

## 399 spin

Hitt.	1	Av.	7	Luv.	11	Goth.	10
Arm.	2	OCS	8	Lyc.	12	ON	10
Gk.	3/18	Lith.	9	TA	13	OHG	10
Alb.	4	OE	10	OPer.	14	Welsh	3
TB	5	OI	3	OPru.	15	Osc.	16
Ved.	6	Lat.	3	Latv.	9	Umb.	17
3 *snéh <sub>1</sub> yeti and derivs.				10 PGmc. *spinnidi			
9 PE Balt. *verpja							

The analysis and etymology of Armenian *niwtʰē* are unclear. It is possible that the first two segments reflect \*sneh<sub>1</sub>-, but Pedersen 1906:426, 436-7 suggests an alternative analysis *n-* + \*hiwtʰ-, the latter < \*pi-ubʰ-t- (PIE \*webʰ- ‘weave’). We have cautiously assigned Armenian a separate state.

## 400 spring

Hitt.	13	Av.	1/15	Luv.	6	Goth.	10
Arm.	1	OCS	1	Lyc.	7	ON	1
Gk.	1	Lith.	14	TA	8	OHG	4
Alb.	2 [loan]	OE	4	OPer.	1	Welsh	1
TB	3	OI	5	OPru.	9	Osc.	11
Ved.	1	Lat.	1	Latv.	14	Umb.	12
1	*wéṣr, *wesn- and derivs.			14	PEBalt. *pavasarjas (cf. 403 'summer')		
4	PWGmc. *langitīn-						

On the Hittite word see Puhvel 1991: 73-5 for discussion. The form of the Latin word must be the result of a sequence of sound changes and paradigmatic levellings, roughly \*wesor, \*wesn- > \*wesor, \*wēn- → \*wēr, \*wēn- → vēr, vēr-.

## 401 stay

Hitt.	1	Av.	7	Luv.	11	Goth.	4
Arm.	2/19	OCS	19	Lyc.	12	ON	14
Gk.	2	Lith.	8	TA	5/22	OHG	15
Alb.	3/20	OE	9	OPer.	13	Welsh	16
TB	4/5/21	OI	10	OPru.	8	Osc.	17
Ved.	4/6	Lat.	2	Latv.	8	Umb.	18
2	*men-			5	PToch. *kəlyətər 'stand'		
4	*h₂wes- 'stay overnight'			8	PBalt. *(pa)leik- (< *leykʷ- 'leave')		

The meanings reconstructable for states 2 and 4 suggest parallel development.

## 402 steal

Hitt.	1	Av.	7	Luv.	13	Goth.	3/10
Arm.	2	OCS	8	Lyc.	14	ON	10
Gk.	3	Lith.	9	TA	5	OHG	10
Alb.	4	OE	10	OPer.	15	Welsh	18 [loan]
TB	3/5	OI	11	OPru.	16	Osc.	19
Ved.	6	Lat.	12	Latv.	17	Umb.	20
3	*klep-			10	PGmc. *stilidi (*stela-)		
5	PToch. *kərka-, pres. *kərna(šə)						

## 403 summer

Hitt.	1	Av.	2	Luv.	9	Goth.	13
Arm.	2	OCS	6/19	Lyc.	10	ON	18
Gk.	3	Lith.	7	TA	17	OHG	18
Alb.	4	OE	18	OPer.	11	Welsh	2
TB	17	OI	2	OPru.	12	Osc.	14
Ved.	5	Lat.	8	Latv.	7	Umb.	15
2	*semH- ~ *sm <sub>ø</sub> H-			17	PToch. *şəmay-		
7	PEBalt. *vasarā			18	PGmc. *sumaraz		

## 404 sweat

Hitt.	1	Av.	2	Luv.	6	Goth.	10
Arm.	2	OCS	4	Lyc.	7	ON	2
Gk.	2	Lith.	5	TA	8	OHG	2
Alb.	3	OE	2	OPer.	9	Welsh	2
TB	2	OI	1	OPru.	5	Osc.	11
Ved.	2	Lat.	2	Latv.	2	Umb.	12
1	*all-			5	PBalt. *prakait-		
2	*sweyd-						

Note that both the Celtic subgroup and East Baltic are split; such a distribution of states argues parallel development.

## 405 sweet

Hitt.	1	Av.	8	Luv.	12	Goth.	16
Arm.	2/19	OCS	9	Lyc.	13	ON	6
Gk.	3	Lith.	9	TA	10	OHG	6
Alb.	4	OE	6	OPer.	14	Welsh	7
TB	10	OI	7	OPru.	15	Osc.	17
Ved.	5	Lat.	11	Latv.	9	Umb.	18
6	PNWGmc. *swōtijaz			9	PBS *saldus		
7	PCelt. *melissis			10	PToch. *swaré < *swadrós		

Despite the general similarity of Gk. γλυκύς and Lat. *dulcis*, any attempt to posit regular sound correspondences encounters so many difficulties that we have preferred to reject the connection. The Luvian word appears to be a participle (see Melchert 1993 s.v.); whether it has any connection with the Vedic word is unclear.

## 406 ten

Hitt.	1	Av.	2	Luv.	3	Goth.	2
Arm.	2	OCS	2	Lyc.	4	ON	2
Gk.	2	Lith.	2	TA	2	OHG	2
Alb.	2	OE	2	OPer.	5	Welsh	2
TB	2	OI	2	OPru.	2	Osc.	6
Ved.	2	Lat.	2	Latv.	2	Umb.	2
*dék <sub>mt</sub>							

## 407 thousand

Hitt.	1	Av.	15	Luv.	9	Goth.	6
Arm.	2 [loan]	OCS	6	Lyc.	10	ON	6
Gk.	3	Lith.	6	TA	5	OHG	6
Alb.	4 [loan]	OE	6	OPer.	11	Welsh	12 [loan]
TB	5	OI	7 [loan]	OPru.	6	Osc.	13
Ved.	15	Lat.	8	Latv.	6	Umb.	14
5 PToch. *w <sup>y</sup> əltse				15 PIIr. *saž <sup>h</sup> áslam < *sm <sub>2</sub> -g <sup>h</sup> éslo-m			
6 *túHsnt-							

That Lat. *mille* belongs with state 3 remains unprovable (and improbable, since it involves positing a zero-grade feminine derivative of \*g<sup>h</sup>éslo- compounded with \*sémih<sub>2</sub> → \*smih<sub>2</sub> ‘one’).

## 408 twenty

Hitt.	1	Av.	2	Luv.	6	Goth.	5
Arm.	2	OCS	4	Lyc.	7	ON	5
Gk.	2	Lith.	4	TA	2	OHG	5
Alb.	3	OE	5	OPer.	8	Welsh	2
TB	2	OI	2	OPru.	9	Osc.	10
Ved.	2	Lat.	2	Latv.	4	Umb.	11
2 *wík <sub>mtih</sub> <sub>1</sub>							

4 PBS phrase \*dvai dešimtī (vel sim.) ‘two tens’

5 PGmc. phrase \*twai tigiwiz (vel sim.) ‘two decades’

On the Albanian form see Demiraj 1997:425; on Lycian *kbisñtāta* see Melchert 2004 s.v.

## 409 udder

Hitt.	1	Av.	6	Luv.	10	Goth.	15
Arm.	2	OCS	7	Lyc.	11	ON	3
Gk.	3/19	Lith.	8	TA	12	OHG	3
Alb.	4/20	OE	3	OPer.	13	Welsh	16
TB	5	OI	9	OPru.	14	Osc.	17
Ved.	3	Lat.	3	Latv.	8	Umb.	18
3 *ówdʰ <sub>1</sub> ~ *uHdʰén-				8 PEBalt. *tešmen-			

## 410 wasp

Hitt.	1	Av.	7	Luv.	10	Goth.	15
Arm.	2	OCS	8	Lyc.	11	ON	16
Gk.	3	Lith.	7	TA	12	OHG	17
Alb.	4/21	OE	7	OPer.	13	Welsh	18/22
TB	5	OI	9	OPru.	7	Osc.	19
Ved.	6	Lat.	7	Latv.	14	Umb.	20
7 *wobʰsēh₂							

It is possible, but far from certain, that Latvian *lapsene* belongs with set 7 and owes its initial consonant to some lexical analogy.

## 411 wear

Hitt.	1	Av.	1	Luv.	1	Goth.	15
Arm.	1	OCS	4	Lyc.	8	ON	11
Gk.	16	Lith.	5/17	TA	1	OHG	12
Alb.	3	OE	15	OPer.	9	Welsh	1
TB	1/2	OI	6	OPru.	10	Osc.	13
Ved.	1	Lat.	7	Latv.	4/5	Umb.	14
1 *wéstor and derivs.				5 derivs. of PEBalt. *velk-			
4 derivs. of PBS *neš- ‘carry’				15 *woséyeti ‘clothe’ (→ intrans.)			

## 412 weave

Hitt.	1	Av.	5	Luv.	10	Goth.	13
Arm.	2	OCS	6	Lyc.	11	ON	3
Gk.	3	Lith.	7	TA	3	OHG	3
Alb.	4/16	OE	3	OPer.	12	Welsh	8
TB	3	OI	8	OPru.	6	Osc.	14
Ved.	4	Lat.	9	Latv.	7	Umb.	15
3	*web <sup>h</sup> -			7	PEBalt. *audja		
4	*weyh <sub>1</sub> - 'plait'			8	PCelt. *weg-		
6	PBS *tuk-						

The (probable) reconstructed meaning of state 4 argues parallel development.

## 413 wheel

Hitt.	1	Av.	6	Luv.	8	Goth.	11
Arm.	2	OCS	14	Lyc.	9	ON	6
Gk.	3	Lith.	7	TA	5	OHG	7
Alb.	4 [loan]	OE	6	OPer.	10	Welsh	7/17
TB	5	OI	3/7	OPru.	15	Osc.	12
Ved.	6	Lat.	7	Latv.	7/16	Umb.	13
3	*d <sup>h</sup> rog <sup>h</sup> ós 'runner'			6	*k <sup>W</sup> ékwlos		
5	PToch. *w <sup>y</sup> Vrk(w)ənt-			7	*(H)rotós 'runner', coll. *(H)róteh <sub>2</sub>		

The Tocharian forms do not match perfectly, and the Hittite word is so dissimilar that we have coded it separately. On the Armenian form see Olsen 1999:23.

The meanings reconstructable for most states argue massive parallel development; therefore polymorphism, which is overt in OIr., may or may not also be present at numerous internal nodes.

## 414 widow

Hitt.	1	Av.	2	Luv.	6	Goth.	2
Arm.	2	OCS	2	Lyc.	7	ON	11
Gk.	3	Lith.	5	TA	8	OHG	2
Alb.	2	OE	2	OPer.	9	Welsh	2
TB	4	OI	2	OPru.	2	Osc.	12
Ved.	2	Lat.	2	Latv.	10	Umb.	13
2	*h <sub>1</sub> wid <sup>h</sup> éwh <sub>2</sub> ~ *h <sub>1</sub> wid <sup>h</sup> wéh <sub>2</sub> -						

Ablaut of the vowel before the second \*w argues a proterokinetic paradigm (Lionel

Joseph, p.c.). On the Armenian form see Cowgill 1983.

415 winter

Hitt.	2	Av.	2/8	Luv.	1	Goth.	7
Arm.	2	OCS	2	Lyc.	3	ON	7
Gk.	2	Lith.	2	TA	2	OHG	7
Alb.	2	OE	7	OPer.	4	Welsh	2
TB	2	OI	2	OPru.	2	Osc.	5
Ved.	2	Lat.	2	Latv.	2	Umb.	6
2 *ǵhéyōm and derivs.				7 PGmc. *wintruz			

416 wolf

Hitt.	1	Av.	3	Luv.	5	Goth.	3
Arm.	2	OCS	3	Lyc.	6	ON	3/11
Gk.	3	Lith.	3	TA	7	OHG	3
Alb.	3	OE	3	OPer.	3	Welsh	8
TB	4	OI	2	OPru.	3	Osc.	9
Ved.	3	Lat.	3	Latv.	3	Umb.	10
2 *waylos				3 *wílkʷos			

On the etymology of the Armenian form cf. Hübschmann 1897:431, Olsen 1999:34; the alternative we have adopted here seems preferable to positing an otherwise unsupported \*wílyos or the like.

If it is true that state 2 is derived from onomatopoeic \*wáy (Olsen, loc. cit.), the character exhibits parallel development.

417 wood

Hitt.	1	Av.	1	Luv.	1	Goth.	1
Arm.	2	OCS	1	Lyc.	7	ON	1/5
Gk.	3/12	Lith.	4/13	TA	1	OHG	5/15
Alb.	1	OE	1/5	OPer.	1	Welsh	9/16
TB	1	OI	5	OPru.	4	Osc.	10
Ved.	1	Lat.	6/14	Latv.	8	Umb.	11
1 *dóru and derivs.				5 *widʰus			
4 PBalt. *malkā							

## 418 wool

Hitt.	1	Av.	1	Luv.	1	Goth.	1
Arm.	2	OCS	1	Lyc.	6	ON	1
Gk.	3	Lith.	1	TA	7	OHG	1
Alb.	4	OE	1	OPer.	8	Welsh	12
TB	5	OI	12	OPru.	9	Osc.	10
Ved.	1	Lat.	1	Latv.	1	Umb.	11

1 \*h<sub>2</sub>w<sub>1</sub>h<sub>1</sub>no-, collective \*h<sub>2</sub>w<sub>1</sub>h<sub>1</sub>neh<sub>2</sub>

12 PCelt. \*wlanā, with unexpected short vowel in first syllable

The Irish word appears to have been deformed by lexical analogy (cf. Pedersen 1909: 179).

## 419 yoke

Hitt.	1	Av.	4	Luv.	5	Goth.	1
Arm.	1	OCS	1	Lyc.	6	ON	1
Gk.	1	Lith.	1	TA	7	OHG	1
Alb.	2	OE	1	OPer.	8	Welsh	1
TB	3	OI	1	OPru.	9	Osc.	10
Ved.	1	Lat.	1	Latv.	1	Umb.	11

1 \*yugóm and derivs.

The initial *l*- of the Armenian word must be the result of some lexical analogy. Various languages have introduced *-n-* under the influence of the related verb \*yunégti ‘join’; since that can easily have been a parallel development, we have not taken account of it in coding.

## 420 young

Hitt.	1	Av.	5	Luv.	6	Goth.	12
Arm.	2/13	OCS	5	Lyc.	7	ON	12
Gk.	2	Lith.	5	TA	8	OHG	12
Alb.	3	OE	12	OPer.	9	Welsh	12
TB	4	OI	12	OPru.	10	Osc.	11
Ved.	5	Lat.	5	Latv.	5	Umb.	5

2 \*néwos ‘new’ and derivs. 12 \*h<sub>2</sub>yuh<sub>1</sub>h<sub>1</sub>kós

5 \*h<sub>2</sub>yuh<sub>1</sub>én-

## 421 tear [noun]

Hitt.	1	Av.	11	Luv.	5	Goth.	2
Arm.	2	OCS	4	Lyc.	6	ON	2
Gk.	2	Lith.	11	TA	11	OHG	2
Alb.	3	OE	2	OPer.	7	Welsh	2
TB	11	OI	2	OPru.	8	Osc.	9
Ved.	11	Lat.	2	Latv.	11	Umb.	10
				11	*ákru		
	2 *dákru						

There is an obvious relation between the forms represented by the two large states, but its exact nature remains obscure. Though the Hittite word clearly resembles them (mainly because it ends in *-ru*), it is too different from either set to be assigned the same state.

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