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## DIE SPRACHE ••• Bd. 51,1 (2014/2015)

### Aufsätze

- 1–50  
BLANCA MARÍA PRÓSPER  
The Indo-European ordinal numerals ‘fourth’ and ‘fifth’ and the reconstruction of the Celtic and Italic numeral systems
- 51–59  
STEFAN ZIMMER  
*Ṛgveda* VII,103,3 *akhkhalīkītyā* and the Aryanization of India
- 60–82  
CYRIL BROSCHE  
Genus- und Numerusinkongruenzen im Hethitischen – Willkür oder Regel?
- 83–91  
ENRIQUE NIETO IZQUIERDO  
El numeral tesalio τρίτος, τρίτος (= τρίτος): ¿arcaísmo o innovación?
- 92–104  
MICHIEL DE VAAN  
Mittelniederländisch *ferpel*, neuhochdeutsch *Frevel* und altfränkisch *farfalius*
- 105–124  
DAVID SASSEVILLE  
Luwian and Lycian Agent Nouns in \*-é-leh<sub>2</sub>
- Rezension
- 125–129  
Lumnije Jusufi, Die zentralgegische Mundartengruppe in Mazedonien (MONICA GENESIN)



# The Indo-European ordinal numerals 'fourth' and 'fifth' and the reconstruction of the Celtic and Italic numeral systems\*

BLANCA MARÍA PRÓSPER

## 1. Numeral-based personal names from western Hispania and Latin *nomina gentilia* of Sabellic origin: The case of 'fourth'

Two isolated personal names from the southern Vetton area, in the Roman Lusitania Emeritensis, have never been given an etymology to my knowledge:

PEIDVRTIA (Pozuelo de Zarzón, Cáceres; CPILC 748);

PEIDVRTA CONCELT F(ILIA) (Conquista de la Sierra, Cáceres; Gimeno / Stylow 1993, nr. 25).

A further personal name RVTILIA PERVRDA (Xinzo de Limia, Orense; CIL II 2566) has received no cogent explanation so far and has never been explicitly related to the other two names, but it clearly belongs with them, as long as we accept that it does not originally belong to the Callaecia Bracarenis and was not properly understood there. It occurs as a cognomen; the nomen RVTILIVS is known to belong to the southern area, especially Vettonia and Lusitania (cf. Sastre Prats 2002, 97). Usually, when people travel abroad, the rendition of their personal names shows differences from the 'proper' or expected one, which are highly informative of both their original pronunciation and the writing habits of both the original and the destination areas.

All the phonetic adjustments and scribal inaccuracies that the name PERVRDA must have undergone are easy to account for: -EI- in PEIDVRT(I)A

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\* This work has been financed by the Spanish government (MINECO FFI2012–30657: *La Antroponimia indígena indoeuropea de Hispania: Estudio comparativo*). – The Celtiberian texts are quoted according to MLH IV, but the notation used here is the same as established in Villar 1995, where the transliteration <ś> vs. <s>, inherited from the traditional transcription of the corresponding Iberian graphs, is replaced by <s> vs. <z>. I would like to thank heartily prof. Heiner Eichner and two anonymous reviewers for their valuable comments.

must be explained as reflecting a tendency to *u*-umlaut, whereby a preceding /e/ is raised. This change is revealed all over western Hispania as in PEI-NVCA, MEIDVENVS, MEIDVTIVS and the place name MEIDVBRIGA, and is perhaps not language-specific (but note that in the case of PEIDVRT(I)A, as in many others, we do not know if it was a Lusitanian name *ore celtico*). Then, if EI locally represents pretonic [e̞], we may wonder what happened during the adaptation of this segment by the Astures in a foreign word. Interestingly, the Astures and Vettones seem to render this segment consistently as E, as many revealing examples show: The posttonic relational suffix *-iko-* is usually rendered by the Vettones as *-EIC*<sup>1</sup> and by the Astures as *-EC*.<sup>2</sup> Furthermore, perceptual confusion of the coronals [ð] and [r] has taken place in PERVRDA, contextually favoured by a tendency to anticipate the next [r]. Finally, original *-rt-* emerges as RD, probably revealing not that the Astures adapted phonetic [rt] as [rd], but that the core examples of PEIDVRT(I)A are conservative when it comes to rendering the voicing of voiceless stops in some contexts, probably because the use of the Latin alphabet and an accompanying writing tradition were established earlier in the southern than in the northern regions, as stated in Prósper 2002 (*pass.*). In lack of guidelines, the foreign name was simply written by the Astures according to its actual phonetics.

The etymological side is easy to resolve: these names go back to PIE *\*k<sup>u</sup>et<sup>u</sup>r-tó-* ‘fourth’.<sup>3</sup> The labial result /p/ of the voiceless labiovelar is the norm in the languages of western Hispania, Celtic or non-Celtic. Early voicing of intervocalic [t] is very well attested in the west, but mostly in Lusitanian, not in Celtic words, and not in the southernmost indigenous Lusitanian inscription found so far (Portalegre, Lusitania Pacensis), perhaps only because of its comparatively early writing tradition or because the Lusitanian inscriptions reflect more than one Lusitanian dialect, with different degrees of archaism and probably different absolute dating. Both variants *-T-* and *-D-* are used in Latinized inscriptions containing only personal, divine and place names. For instance, cf. IFATE (Portalegre) vs. IFADEM (*\*en(i)-fat-jo-*; Cabeço das Fráguas), RADOM (*\*rato-*; Viseu), ADAECINAE vs. ATAECINAE

<sup>1</sup> ACCEICVM (Salamanca), CABVRATEIQVM (Ávila), etc.

<sup>2</sup> TILLEGVS (Lugo) vs. TILLICVS (Dijon), ABLECA (Bragança, Zamora, Toledo) vs. ABLICVS (Cáceres) and ABLIQ(VM) (family name, Osma), BODECIVS (León) vs. BOVDICA (Portugal).

<sup>3</sup> An ordinal suffix *-th<sub>2</sub>o-/-h<sub>2</sub>o-* has been posited by Rix (1976, 170 ff.) on the strength of OI *-tha-*. I will not use the more complex reconstruction in this paper since it is immaterial to my argument; cf. Schmidt 1992, *pass.*

(\**at-aiko-*, Cáceres), TOVDOPALANDAIGAE (\**teuto-palant-aiko-*, Cáceres), TOVDADIGOE (\**teut-at(i)-iko-*, Orense), EDIGENIO (\**eti-gen-jo-*, Badajoz).<sup>4</sup>

I have repeatedly claimed that Lusitanian is not only a non-Celtic language, but one with many non-trivial links with the Italic languages, including Latin. Whether this classifies it as an Italic language or not is a complex matter that I cannot afford to tackle here. Suffice it to say that the above names favour this diagnostic in a general sense as I will argue below. In fact, PEIDVRTA finds an unexpected cognate in a hitherto overlooked gentilic from Italy. A Latin inscription from the *ager Picenus* reads:

T(ITVS) PETVRTIVS T(ITI) F(ILIVS) / [-]AEVENA / (MVLIERIS) L(IBERTA) / ALVILLA / T(ITVS) PETVRTIVS T(ITI) F(ILIVS) / PRIMVS / [-] / IN F(RONTE) P(EDES) XVI (Ascoli Piceno, Marche, Italy; AE 1990, 297).<sup>5</sup>

No fewer than three possible variants of this name exist in as many inscriptions from Rome, which, if they belong here, evinces that the name was completely unknown there, and consequently incorrectly understood and variously rendered:

C(AIVS) PETVRCIVS CRV(STVMINA) PVDENS INT(ER)AM(NA) (Rome; CIL VI 221; Interamna is in southern Umbria);

P(VBLIVS) PETVREI[VS] (Rome; CIL VI 12488);

D(IS) M(ANIBVS) / L(VCIO) PETVRCIO / CARPO // D(IS) M(ANIBVS) / L(VCIO) PETRVCCIA / CARPO (Rome; CIL VI 24055).

Note that there is no easy alternative explanation since these variants of the nomen exist nowhere else, and the context bound orthographic confusion of <ti> and <ci> probably reflects their approaching articulation even before palatalization took place, as early as the 2<sup>nd</sup> century, as in MVNDICIEI for *munditiei* in 136 AD (see recently a model of change of these sequences in Aski 2001). PETVREI[VS] may be a misspelling or a misreading, but I do not think it is unrelated (there is additionally a possibility that it continues \**k<sup>u</sup>etur-jo-* and is derived from the cardinal like *Pompilus* and *Pompeius*). These inscrip-

<sup>4</sup> See Prósper 2002, pass.; Prósper / Villar 2009.

<sup>5</sup> After a long search I have only found one reference to the form or meaning of PETVRTIVS in Weiss (2002, 354), who, speaking about the South Picenian name *Petro*, observes in passing that it “is a reflex of the archaic ordinal *Petro-* < \**peturo* ‘fourth’ [...] \**peturo-* was itself replaced in the history of Sabellic, in some dialects at least, by the form \**peturto-* with the suffix *-to-* generalized from \**penk<sup>u</sup>to-* ‘fifth’ and \**seksto-* ‘sixth’. The form \**peturto-* is reflected in the recently discovered gentilic *Petur-ius*. From the existence of these two forms we can probably draw the inference that the form *trutum* [...] is not yet another form of the ordinal of four”. My account differs from his in some respects (see below, p. 5).

tions contain a gentile *Peturtius* in constructions of *duo nomina*. *Peturtius* can only go back to PIE *\*k<sup>u</sup>et<sup>u</sup>r-tó-* ‘fourth’ with the secondary phonotactics *\*k<sup>u</sup>etur-tó-*, either inherited from Proto-Italic or innovative. This is typologically surprising, however. As recently remarked by Salomies (2009, 515), who does not take this form into account, Roman *nomina gentilia* of numeral origin are attested only in the range from ‘five’ to ‘ten’.

Pocetti (1995) has come up with a convincing explanation of this peculiarity that claims that this system does not reflect as usually assumed the order of childbirth, which would be preposterous for obvious reasons, but is associated to the Roman calendar of ten months, lasting more or less the same number of days as a pregnancy. That there are no numeral-based gentilics prior to *quinctius* is understandable, since the original Roman ten-month system only named months by means of ordinals from *quintilis* and *sextilis* (corresponding to July and August) onwards; as expected, the first names of the series – *Martius*, *Aprilius*, *Maius*, *Iunius* – are found as personal names, too. By contrast, praenomina starting from *Primus* do reflect birth order.<sup>6</sup>

On the other hand, Italic reflexes of the ordinal ‘fourth’ are found in Oscan if Osc. *trutas*, TRVTVM, the context and meaning of which are unclear, go back to *\*k<sup>u</sup>tru-tó-* from original *\*k<sup>u</sup>t<sup>u</sup>r-tó-* (cf. Swiggers 1988). These forms have been compared with the Roman gentilics TRVTELVIS, TRVTTEIVS, TRVTTEDIVS by Pocetti (1995, 247) and consequently have been added to the list of numeral-based gentilics of Sabellic origin. A patronymic *trutitis* in the short Umbrian text *Ahal trutitis dunum dede* ‘Ahalus Trutitius donum dedit’ (Todi, votive statue, 4<sup>th</sup> c. BC; cf. Rix 2002, Um 16) is somewhat disputed. It is taken to be Umbrian, and Pocetti compares Osc. *dekitis*, but may be Celtic according, e.g., to the new *Lexicon Leponticum* (LexLep sub PG-2), with references to former works. Finally, the Venetic divinity in the dative sg. *trumusijatei* (Làgole di Calalzo, Cadore), if it contains a compound of *\*k<sup>u</sup>t<sup>u</sup>r-*, confirms the Italic evolution of this sequence into *\*tru-* as seems likely on account of its variant in the accusative sg. *tribusijatin* from *\*tri-*, perhaps respectively meaning ‘four-’ and ‘three-faced’, ‘triformis’.<sup>7</sup>

<sup>6</sup> Still, note that Petersen (1962) had given this very explanation to ordinal-based praenomina on the account that the first part of the series from *Primus* to *Quartus* is not yet attested in Republican times.

<sup>7</sup> Cf. Marinetti 1995, 184 ff. Pellegrini (1999) has elucidated the second term of the epithet but has also considered the possibility that *tru-* is assimilated from *tri-* before a labial sound. Its best parallel is Gk. τρυφάλεια ‘helmet’.



However, *\*k<sup>u</sup>tru-* may have existed in Celtic, too: I believe there are a number of Celtic compounded names with collective meaning whose first term is a numeral form, and the second is PIE *\*-h<sub>3</sub>k<sup>u</sup>o-*: VIPPONI, VIPPIVS (Liguria, Alpes, Narbonensis) go back to *\*d<sup>u</sup>īk<sup>u</sup>o-* ‘double looking, twofold’; TRIPPI, TRIPPONIS, TREPPONIS (Transpadana, Pannonia) to *\*trīk<sup>u</sup>o-* ‘threefold’,<sup>8</sup> and TRVPPICVS, attested only in Venetia et Histria, may be traced back to *\*k<sup>u</sup>trūk<sup>u</sup>o-* ‘fourfold’. A hapax ELOPPO (dat. sg., Belgica) would then come from *\*pelu-h<sub>3</sub>k<sup>u</sup>o-* ‘manyfold’. The double P is probably due to the Continental Celtic version of ‘inverse compensatory lengthening’ or ‘lex Iuppiter’, but this is the subject of another work.

Pocetti has drawn the conclusion that, in contrast to Latin, the numeral-based names of other Italic peoples are included between ‘fourth’ and ‘tenth’, both in the cardinal and the ordinal series, and consequently it may be at ‘fourth’ that the Italic calendar started using ordinal numerals to name months (Pocetti 1995, 259):

poiché, infatti, il mondo italico appare tutt’altro che unitario per quanto riguarda le istituzioni politico-amministrative, è tutt’altro che remota la possibilità che in un fenomeno di precipua rilevanza istituzionale come l’organizzazione del calendario incedessero in varia misura variazioni locali.

Salomies (2009, 518), however, remains sceptical about ‘fourth’, since the *nomina gentilia* from *\*trut-* are confined to Umbria and Central Italy, like *Petronius*, and are not indicative of the naming habits of Campania.

One can conclude that Latin *nomina gentilia* going back to the different Italic variants of the ordinal ‘fourth’ never reached beyond certain limits, or, in other words, that one must expect any new discoveries in this area to be confined to limited areas. But the new *nomen gentile* PETVRTIVS, going back to PIE *\*k<sup>u</sup>et<sup>u</sup>r-tó-*, seems to confirm Pocetti’s idea and points to different Italic peoples organizing their calendar in roughly the same way but using more than one inherited form. PETVRTIVS, judging from its only ‘correct’ attestation, must consequently be a South Picene or perhaps Umbrian (month-)name, probably promoted to the condition of *nomen gentile* within the limits of a small region.

Since the Hispanic forms PEIDVRT(I)A, PERVRDA have indigenous phonetics, are deeply embedded in an indigenous context and used only for wo-

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<sup>8</sup> The family of OHG *zwīg* ‘twig’ might come from *\*d<sup>u</sup>īk<sup>u</sup>ó-* with labial dissimilation. Cf. OI *dvīka-* ‘twofold’, *trīka-* ‘triad, threefold’ (with a short vowel, possibly by analogy with other *dvi-*compounds); in both cases a velar is usually reconstructed.

men, and the corresponding Latin gentilic *Peturtius* is extremely rare and otherwise never found outside of eastern and (secondarily) central Italy, it is very unlikely that the Hispanic forms are Latin names exported only into western Hispania (by soldiers of Picenian ancestry?) and secondarily used as cognomina. But as I will argue below, it is very likely that both sets of names come ultimately from the same source.

The IE numeral ‘four’ is the highest one in the cardinal series displaying inflection for case, number and gender. It is usually reconstructed for the neuter and masculine as *\*k<sup>u</sup>etuōr* (collective form), *\*k<sup>u</sup>etuōr-es* (nom. pl.), *\*k<sup>u</sup>tur-ns* (acc. pl.), *\*k<sup>u</sup>tur-óm* (gen. pl.), etc., but of course it is hardly ever attested as such anymore, except perhaps in Homer in the accusative pl. πῖσσυρας, genitive pl. πῖσσύρων, with a new nominative pl. πῖσσυρες; those languages where there are still traces of the primitive paradigm invariably show the root vowel *-e-*.<sup>9</sup>

It is usually taken for granted that the primitive Indo-European ordinals must have come into being by mere thematization of the oblique stem (cf. Szemerényi 1960, 63 ff.). Thus, the original word for ‘fourth’ must have looked like *\*k<sup>u</sup>turó-*. It is only attested in the OI derivative *turiya-*, *turīya-*, which goes back to PIIr. *\*kturī/īiam* (as can be inferred from Av. *ā-xtūrīm* ‘to the fourth’ > ‘four times’), and probably in Hitt. *kutruwan* ‘witness’ from *\*k<sup>u</sup>turjío-n-* or *\*k<sup>u</sup>turjío-n-* via *\*k<sup>u</sup>trujío-n-* (cf. Eichner 1982, 353) and names like Hispano-Celt. TVRROS and Ven. *Turijonei* dat. sg. (Cadore).

The actual ordinal form attested in most languages is *\*k<sup>u</sup>etur-tó-*, continued with slight modifications by Gk. τέταρτος (western Greek τέτρατος),<sup>10</sup> OI *caturthá-*, PGmc. *\*feðurþan-*, OCS *\*četvrŕtŭ*, OPr. *kettwirts*, Lith. *ketviřtas*, Latv. *ceturtāis*, Toch. A *štärt*, B *štarte*,<sup>11</sup> a list now enriched by the Italic and Lusitanian forms and by a most recent Celtic discovery, as we will immediately see. PIE *\*k<sup>u</sup>etur-tó-* is the regular syllabification according to Schindler’s laws (1977). Whether the secondary *\*k<sup>u</sup>etur-tó-* shown by some lan-

<sup>9</sup> Cf. OI *catvāras* nom. m., *catvāri* n. vs. *catúras* acc. m., Lith. *keturì* vs. *kēturis* acc. The Celtic cardinal goes back directly to *\*k<sup>u</sup>etuores*, as in OIr. *cethair*, OW *petguar*, etc., but the Old Irish word is inflected as an *i*-stem except for the nominative, e. g. OIr. *cethri* acc. < *\*k<sup>u</sup>eturins*. See Eichner 1982, 300 ff.

<sup>10</sup> This may be the reason why a paradigm *\*k<sup>u</sup>etur-es*, *\*k<sup>u</sup>etur-ns*, etc. was evened out as *\*k<sup>u</sup>etur-*. Lesb. πέσσυρες ‘four’, transmitted by Hesych, can only come from a nominative pl. *\*k<sup>u</sup>eturēs* (cf. García-Ramón 1984).

<sup>11</sup> With loss of *-u-* as in Greek or directly from *\*k<sup>u</sup>etur-tó-* according to Adams 1999, 641.

guages is due to the analogy of the prevocalic sequence *-ur-*, as argued by Szemerényi (1960, 79), or to a mere optimization of the syllabic structure, is debatable.

A recent study by Keydana (2010) claims that in Proto-Indo-European, like in other languages, syllabifications like *\*k<sup>u</sup>et<sup>u</sup>r-* are due to a high-ranking markedness constraint which blocks high-sonority codas. Thus, coronal sonorants are said to be comparatively unnatural in codas, and consequently two repair strategies were used in Proto-Indo-European to avoid them as far as possible, especially in the sequences *-ur/n-C/#*: Metathesis of *\*k<sup>u</sup>etur-* > *\*k<sup>u</sup>etru-* in compounds was a diachronic strategy based on erroneous perception (another example is *\*drákur#* > *\*d(r)ákru#* ‘teardrop’), and syllabification of the sonorant yielding *-<sup>u</sup>r-* was a synchronic device to turn the sonorant into a syllabic nucleus. We have to note that Keydana refers to optional strategies within Proto-Indo-European. He dismisses the case of OI *caturthá-* as young in a footnote, but does not mention Latv. *ceturtaiš* or PGmc. *\*feðurþan-*, and of course he does not know the Italic and Lusitanian forms. And yet, the Italic syllabification *\*k<sup>u</sup>etur-* is attested in preconsonantal as well as prevocalic position: cf. <sup>?</sup>South Pic./Umbr. *Peturtius*, Lat. *Petrō* from *\*petur-ō(n)*, and Umbr. *petur-pursus* ‘four-footed’ from PItal. *\*k<sup>u</sup>etru-*.

Lat. *quārtus*, in contrast, is an irregular form by all accounts: The traditional explanation starts from *\*k<sup>u</sup>et<sup>u</sup>r-tó-* > *quet<sup>u</sup>orto-* with subsequent dissimilation of *-t-*. Schrijver (1991, 491 ff.) starts from *\*k<sup>u</sup>t<sup>u</sup>r-tó-*, which yielded *\*k<sup>u</sup>d<sup>u</sup>r-tó-* by lenition, then *\*k<sup>u</sup>aduorto-* with anaptyxis and finally *quārtus* with loss of *-d-* and vowel contraction. Still, one could argue that this is not really a context favouring lenition, and it is doubtful that a voiceless labiovelar would have been preserved as such even after the dental was voiced. The expected result is attained at the price of an *ad hoc* first step, and this evolution is especially difficult to believe if *\*k<sup>u</sup>t<sup>u</sup>r-tó-* has yielded Osc. *truto-* and probably Umbr. *Trutitis*. It goes without saying that an onset containing three consonants is in itself a *petitio principii*.<sup>12</sup> Summarizing, in no Indo-European language has the labiovelar survived in contact with following *-t<sup>u</sup>-* in the numeral ‘fourth’. A vocoid has been developed only in the context *\*k<sup>u</sup>tur-* > *\*k<sup>u</sup>ətur-*, as in the Greek cardinal πέντε, in Hitt. *kutruwan* if we reconstruct *\*k<sup>u</sup>turjō-n-* and in Alb. *\*kátërt-* with *-a-* from *\*k<sup>u</sup>ətur-tó-* (Hamp

<sup>12</sup> The normal result would be a Sievers syllabification PIE *\*k<sup>u</sup>t<sup>u</sup>r-tó-* or a primitive anaptyxis PIE *\*k<sup>u</sup>ətur-tó-* (Schindler), or even a loss of *-<sup>u</sup>-* yielding PIE *\*k<sup>u</sup>t<sup>u</sup>-tó-*, which may be the explanation of Gk. ταρταμόριον; cf. *\*k<sup>u</sup>t<sup>u</sup>-* in Myc. *to-r-pe-za*, Gk. τράπεζα.

1992, 910; his reconstructed variant *\*k<sup>u</sup>ətru-tó-* can be put down to a metathesis from *\*k<sup>u</sup>aturtó-* with full vowel).

Admitting that the cardinal *quattuor* comes from the collective form *\*k<sup>u</sup>etuōr* or from the nominative pl. *\*k<sup>u</sup>etuores*, its root vowel *-a-* may have spread from the oblique stem *\*k<sup>u</sup>ətur-* (cf. Schrijver 1991, 491 ff.; de Vaan 2008, s.v. *quattuor*). But then, what is the reason for the gemination? Bammesberger explains *-tt-* in *quattuor* as a “lex littera” result of *\*quātuor* with /ā/ imported from the ordinal *quārtus* (1995, 213 ff.; though in fact this very idea had been put forward by Kent 1927). In turn, *quārtus* would require a chain *\*k<sup>u</sup>etur-tó- > que(t)uorto- > quevortus > quovortus* (by assimilation) > *quavortus* (by unrounding).

Still, a scenario entailing an unnatural syllabic structure can be envisaged to explain *quattuor*: If the immediate ancestor of Latin had inherited a sequence PIE *\*k<sup>u</sup>et.uōr*, the undesirable heterosyllabic cluster *-t.u-* would tend towards restructuring over time (see the general idea in Vennemann 1988, 47 f.). To attain preferable syllabic structures, languages employ different devices. One of them is gemination of the coda of the first syllable, which explains *-t.u- > -tt.u-* in *quattuor*, perhaps OPr. *kettwirts* and probably also in Osc. *pettiur* if from *\*k<sup>u</sup>etuōr* and then originally identical to Lat. *quattuor*. An isolated name PETTVRONIS (gen. sg., Gallia Belgica) seems to be equally built on a cardinal base *\*k<sup>u</sup>ettuor-* or *\*k<sup>u</sup>ettur-* with strengthening of the voiceless stop, but its dialectal ascription is difficult to ascertain.<sup>13</sup> If the original form is *\*k<sup>u</sup>ettuōr* and if there is no explaining *quattuor* phonetically from it (but bear in mind that the phonetic environment of this *-e-* was next to unique), Latin could have generalized *-a-*, as often claimed, from the subsequently lost oblique cases like *\*k<sup>u</sup>ətur-om*, etc. In Sabellic the opposite result was attained when *-e-* was generalized from PIE *\*k<sup>u</sup>etuōr*, *\*k<sup>u</sup>etuores* to the weak stem.

A less usual means of avoiding unnatural syllables is the subtype of calibration consisting of weakening and loss of the coda of the first syllable, which is attested for instance in Old French, where *statuale > stavel*, *potuit > pout* (but cf. Pensado Ruiz 1986, 84, who starts from *-tu- > -tv-*) and explains

<sup>13</sup> All the Greek variants of the form *\*k<sup>u</sup>etu(V)r-* must be equally explained via a stage *\*k<sup>u</sup>ettu(V)r-*, as is the case with other clusters (cf. Méndez Dosuna 1995, 120 ff.). Note that this phenomenon can take place in some consonant clusters and not in others; it is attested in other Latin words like *battuō*, occasionally *futtuō*, in epigraphy (ACQVA, IANNVARIVS, BETTVEDIVS), and in the Romance languages (cf. Pensado Ruiz 1986, 86 ff.).

the process by which *-mn-* yields *-un-* in most Celtic dialects. This would account, via *\*k<sup>u</sup>ed.ʷr.to-*, for the different treatment of the originally trisyllabic *quārtus*, where the accent may have played a role. The intermediate stage would be preserved in the anomalous voicing of *-t-* in the compositional variant *quadru-* from *\*k<sup>u</sup>ed.ʷr-*, where metathesis would have aborted the tendency of the stop to total loss. The vocalism can be explained from secondary *-aʷo-* (with *-a-* from *quattuor*) yielding *-ā-*, or from *-oʷo-*, which was reduced to *-ō-* before the action of Havet’s law. This would explain the personal name QVORTA (Praeneste; CIL I 328) as an archaism, and *quārtus* as redone on the analogy of *quārtuor*.<sup>14</sup> Still, *quadru-*, whatever the reason for voicing, is likely to reflect the inherited compositional variant *\*k<sup>u</sup>etru-* in Av. *caθru-*, Umbr. *petur-*, Gaul. *petru-* (*petorritum* ‘four-wheeler’ is the outcome of metathesis) with *-e* >> *-a-*.

Yet, taking into account the new testimonies, we have to face a problem. If we accept that Latin goes back to the same branch of Indo-European as Sabellic, the corresponding form in a Proto-Italic stage could only be *\*k<sup>u</sup>etʷor-to-*, which is incompatible with PETVRTIVS, or *\*k<sup>u</sup>etur-to-*. Consequently, I believe *quārtus* comes from *\*k<sup>u</sup>eturto-* via analogical *\*k<sup>u</sup>aturto-* (from *quattuor* and its oblique cases) with the unavoidable dissimilatory loss of *-t-* that yielded *\*k<sup>u</sup>aʷrto-*; QVORTA would simply reflect the tendency of *-aʷ-* to monophthongization, whereas Lat. *quārtus* alternatively lost the off-glide with lengthening because *-aʷrC-* was comparatively unnatural. Note that the first part of this explanation is very similar to the history of Germanic ‘fourth’, where a similar dissimilation has taken place in West Germanic: PGmc. *\*feðurþan-* > OHG *fiordo*, OE *fēorþa*.<sup>15</sup> In fact, there is a Modern Spanish example to the point: Standard Sp. *pesadumbre* ‘grief, affliction’ is attested in La Mancha (central-eastern Spain) as *pesaombre*, *pesambre* and *pesombre*.

On the other hand, Lusitanian *-VR-* can be variously explained. It may have generalized the marked syllabification *\*k<sup>u</sup>etur-tó-*, like OI *caturthá-*, PGmc. *\*feðurþan-*, Latv. *ceturtāš* and the Italic name PETVRTIVS, and this seems the simplest solution. Alternatively, it may have undergone a change by which PIE vocalic liquids yield *-ur-*, *-ul-* (perhaps contextually for ‘regular’ *-or-*, *-ol-*; see Prósper 2013, 185. 197), so that a primitive form *\*k<sup>u</sup>etʷr-*

<sup>14</sup> Cf. Coleman 1992, 410 ff. for an account of *quārtus* involving the steps *\*k<sup>u</sup>eʷorto-* > *\*k<sup>u</sup>oʷorto-* > *\*k<sup>u</sup>ōrto-*.

<sup>15</sup> But note that this phenomenon can be explained as analogical of the West Germanic loss of the dental in the sequence *-dʷ-* in the cardinal (cf. Eichner 1982, 300).

*tó-* has resulted in *\*petuor-to-* with subsequent simplification (but note that there is no trace of the fortition of *-t-* exhibited by Lat. *quattuor*, etc.). This account is possible for Germanic, too. Under this assumption, it may even have lost medial *-u-*, like Gk. τέταρτος and possibly Toch. A *štärt*, B *štartte*, which would presuppose an evolution *\*k<sup>u</sup>etūr-tó-* > *\*k<sup>u</sup>etṛ-tó-* > *\*petur-to-*, with *-ur-* from *-r-*. On the most straightforward account, Lat. *quārtus*, Praen. QVORTA, South Pic./Umbr. PETVRTIVS and Lusit. PEIDVRT(I)A come from a single ordinal *\*k<sup>u</sup>eturto-*, and Osc. TRVTVM, *trutas*, Umbr. *trutitis* come from *\*k<sup>u</sup>tūr-tó-* by metathesis.

A final word is in order regarding the Oscan cardinal ‘four’. Beside the form *pettiur* (Alfedena, L’Aquila), an isolated word whose context is destroyed (which has brought about some doubts as to its being a numeral at all), there is an often quoted, intriguing passage in Paulus Diaconus ex Festo that reads *alii osce quod hi quoque pitora quattuor vocent* (Lindsay 1913, 227). According to WOU (550), this form is “verderbt aus *\*petora* oder *\*petura*”. The list of Italic names derived from ‘four’ reviewed above (p. 3) can be enriched with a cognomen PETORVS,<sup>16</sup> which makes it reasonable to assume that *pitora* contains /o/ or /o:/, not /u/:

M(ARCVS) NONIVS PETORVS (Herculaneum, Latium et Campania, 1<sup>st</sup> c. AD; CIL X 1403).

Where does this form come from? First of all one wonders why the medial vowel was not syncopated if, as Buck (1904, 138) and Coleman (1992, 394) contend, this form presupposes a PItal. *\*k<sup>u</sup>etūrālā*.<sup>17</sup> Assuming that *pettiur* means ‘four’,<sup>18</sup> it may regularly go back to a collective *\*k<sup>u</sup>etūōr* by a chain of phonetic changes including early context-bound raising (*\*k<sup>u</sup>et<sup>u</sup>ūr*), dissim-

<sup>16</sup> Only mentioned in passing by v. Planta 1897, 769: “zu *Petronius* etc. vgl. noch das cognomen *Petorus*”.

<sup>17</sup> Cf. syncope of /o/ in a similar context in Osc. *akkatus* ‘advocati’ < *\*adokātūs* < *\*ad-ukātūs*; with samprasarana *\*aderlā* in the place name *Aderl* attested in coins, from *\*adrolā* (cf. Meiser 1986, 133). Even if the medial cluster had never been simplified, we would expect a result *\*petura* with samprasarana. If the ending were *-ā*, it would be rendered <ú>, <o> in Oscan, but a pronunciation [v:] may have been understood by Latin speakers as [a:].

<sup>18</sup> In fact, there is room before this word, and the words beneath this are incomplete. La Regina (2010, 45 ff.) reads *pettiúr*. Since <ú> usually stands for [o] and this segment does not bring about palatalization of the preceding dental, either it is an intentional misspelling (a phenomenon well known in endings like *-úd*, *-ús*) or the word is entirely unrelated to the numeral ‘four’. This reading is not certain at all to judge from his photograph, however.

ilation and labialization (*\*petūr*), contextual excrescence of a glide *-j-* (*\*pet-ĵ-ūr*), and finally resyllabification and fortition (*\*pet.tĵūr*).<sup>19</sup>

Consequently, *pettiur* and *\*petora* seem to be synonymous forms, but they cannot go back to two PIE variants of this numeral opposed by gender, since both have neuter features. Secondly, *\*petora* cannot be derived from an ancestor of *pettiur*, or we would find <sup>†</sup>*pettiura*. And *-a* cannot have been added to a preexisting *\*petōr*, since there is no reason to reconstruct a PIE form *\*k<sup>u</sup>etūōr* and no way of explaining it within Italic.<sup>20</sup>

In my view, the PIE masculine form *\*k<sup>u</sup>etūores* yielded Sabellic *\*petores* and then *\*petors* (by final syncope) > *\*petorr* (by assimilation) > *\*petōr* (with compensatory lengthening). A similar chain of events has been reconstructed in Umbr. *frateer* ‘brothers’ from *\*frāteres*, where <ee> is indicative of a long vowel, for which no separate symbol was available. This is indirectly confirmed by Oscan *III nee[rūm* (gen. pl.) ‘of four men’ in which the long vowel follows that of the nominative pl. *\*nēr* < *\*ner-es*.<sup>21</sup> Bear in mind that in the case of *pitōra* and PETORVS no indigenous testimony has survived.

The resulting *\*petōr* could be no longer felt as a masculine and was in turn enlarged by the Sabellic neuter ending *-ā*, probably influenced by *triā*, or by the athematic variant *-ǎ*, provided it was still available when this numeral appeared; and this was the cardinal which formed the base of the Oscan cognomen PETORVS. This explanation is unproblematic if *pettiur* is an incomplete word and/or etymologically unrelated. But if it is not, a more complex scenario must be envisaged.

For instance, if *\*petōr* and *\*pet(i)ūr* had become competing forms at some moment in the history of Oscan or even earlier in Sabellic, they could no longer be interpreted as opposed by gender and may even have been felt as allomorphs for a while. The creation of a recharacterized neuter *\*petōr-ǎ/ā* may be due to *\*pet(i)ūr*’s tendency to be used in certain specialized slots.

<sup>19</sup> WOU (550) starts from a “nicht-flektierte Form” *\*k<sup>u</sup>etur* which does not exist, at least with this phonotactic structure. This idea seems to have originated with the explanation of Umbr. *peturpursus* ‘quadrupes’ as containing *\*k<sup>u</sup>etur*. This is hardly tenable, however. *Petur-* goes back to the inherited compound variant *\*k<sup>u</sup>etru-* and has undergone metathesis. From a different standpoint, García-Ramón (2011) explains gemination in *pettiur* and other cases as a graphic device to note palatalization.

<sup>20</sup> For instance by early abbreviation of a long vowel in a string *-V:r#*, which is gainsaid by such independent evidence as Umbr. *utur* < *\*udōr* ‘water’, etc.

<sup>21</sup> Hardly readable according to Rix 2002, Po 72; present reading and interpretation by Imlt II, 674 *sub Pompeii* 31.

If, on the contrary, *\*petōr-es* and a secondary paradigmatic neuter *\*petōr-ǎ/ā* had coexisted early in Sabellic (thus relegating the inherited collective form *\*petūr* to a marginal role), the irregular resulting alternation *\*petōr* vs. *\*petōr-ǎ/ā* could be solved by transferring the long vowel of the masculine to the neuter, yielding the indirectly attested *\*petōr-ǎ/ā*. Lack of final syncope in Oscan would remain unaccounted for only if the ending was *-ǎ* (and even so examples are lacking for the loss of this particular vowel).<sup>22</sup>

Finally, it cannot be ruled out that the two extant forms *\*petiūr* and *\*petōr* for the cardinal ‘four’ are just dialectal variants, respectively inheriting the collective and the masculine form as explained above; in that case *\*petōr* was the only survivor of the cardinal in some regions, probably to the south of Rome, and was there recharacterized by means of a neuter ending, perhaps because indeclinable cardinals were felt as neuter substantives governing a pseudo-partitive genitive (cf. OI *pañca janānām*), instead of being accompanied by juxtaposed substantives of the three genders, as in Latin *quinque genera – puerī – puellae*; the limit of the indeclinable vs. declinable numbers was simply shifted from ‘five’ to ‘four’, as in Latin, and their syntax as well as the morphology of the decades ending in *-a* facilitated the remodelling.

## 2. The Celtic outcome of the PIE ordinal ‘fourth’

Both Gaulish and Brittonic preserve instances of a common form *\*petuarijo-* ‘fourth’, which either continues *\*k<sup>u</sup>etur-ǐó-* with a secondary syllabification after *\*trit-ǐjo-* ‘third’ or is an innovation based on the cardinal *\*k<sup>u</sup>etur-es* > *\*petuares* and equally suffixed by *-ǐjo-*. This form is continued in Gaul. PE-TVARIOS, twice attested in the Gaulish graffiti of La Graufesenque, and in OW *petguared*, MW *pedwerydd*, OBret. *petguare*, as well as a number of ancient and modern place names (on which cf. DLG, 251). By contrast, OIr. *cethramad* goes back to *\*k<sup>u</sup>etur-ameto-*. No Celtiberian attestations of this ordinal exist so far.

Lambert / Stifter (2012) have edited a Gaulish text found in Rezé (Loire-Atlantique) that displays an interesting list of ordinals in their natural order, some of them unknown:

TRILV / PAETRVTE / PIXTE / SVEXXE / SVANMANV

<sup>22</sup> Final syncope is said to predate syncope; but cf. Nishimura 2012, who contends that both processes are synchronous.



It is so archaic that the ordinal ‘fifth’ has the form PIXTE, as opposed to the secondary form PINPETOS (La Graufesenque), and ‘seventh’ is designated by a tabooistic SVANMANV ‘good-named’, with preservation of the cluster *-nm-*, that aligns this text with the Châteaubleau tile. It can be inferred that the numeral PAETRVTE ‘fourth’ bears testimony to a very primitive stage of Gaulish, too.<sup>23</sup> If Celtic inherited *\*k<sup>u</sup>eturtó-*, *\*petruto-* must come from it as a result of articulatory difficulties in a difficult cluster. Of course, as pointed out by the edition, this may partly be due to the existence of *\*petru-* in *Petru-coriū*, etc. But if Celtic inherited *\*k<sup>u</sup>eturtó-*, as may have been the case with Italic, the metathesis could be a device to avoid the coronal in the coda, as claimed by Keydana (2010).

Now, are there any Celtic examples of the zero grade *\*k<sup>u</sup>eturtó-* reconstructed for Italic? A curious inscription from Nîmes (Gallia Narbonensis; CIL XII 3362) consisting of a sequence of indigenous, for the most part demonstrably Celtic names inflective for the nominative and the dative case, contains a dative form VATRV(TA)E. In my view this name goes back to *\*(d)uo-(k<sup>u</sup>)truto-* with the frequent unrounding of *uo > ua* and means ‘twice fourth’ = ‘eighth’. It is usual in some languages to express higher numbers by means of compounds made up of lower ones, and when this happens ‘eight’ is ‘two-four’, formed by multiplication, according to a counting strategy attested for instance in the Uralic languages and sometimes tracked down in the IE word for ‘eight’ itself. The Celtic languages have instances of this kind of numeral compounds, like OIr. *déec* gen. sg. < *\*d<sup>uej</sup>-penk<sup>u</sup>o-* ‘ten’ or MW *deunaw* ‘twice nine, eighteen’.<sup>24</sup> VATRV(TA)E additionally matches a dative TRVT(A)E (Narbonne, Gallia Narbonensis; CIL XII 5174).

The recently uncovered TRVTMO FLORVS CLITMONIS FILIVS (Mainz, Germania superior; AE 2005, 1128)<sup>25</sup> goes back to *\*trut-amū* with syncope

<sup>23</sup> These forms look like locatives, except TRILV ‘third’ which may be an instrumental in *-ū*.

<sup>24</sup> The etymology of the Irish form is disputed, however; cf. Schrijver 1993. Interestingly, one of the following names in the inscription is SEXTANT[IO], although it may be an *origo* referring to the homonymous place name of the Narbonensis (It. Ant. 396,7, etc.) as well as a feminine SEXTANT[IA] as per Delamarre 2007. The alleged relationship of this place name with Lat. *sextans* is formally possible but semantically far from convincing, unless it has somehow retained the original meaning ‘set of six’.

<sup>25</sup> The context is magical and quite extraordinary: the inscription was written on a leaden plaquette wrapping a little clay figure representing the prospective victim of a defixio in the temple of Isis and Magna Mater, which was in use from the 1<sup>st</sup> to the 3<sup>rd</sup> c. AD.

of the postonic vowel, to judge from the father's name, from *\*klit-amū*.<sup>26</sup> It is in my view an ordinal *\*(k<sup>u</sup>)truto-* enlarged with an *amo-* suffix, in its turn metanalyzed from the original Celtic ordinal *\*sextamo-* 'seventh'. And the same can be said of the western Hispanic personal name PINTAMVS 'fifth', the Greek personal name Τύρταμος 'fourth' (Lesbos), OI *saſthama-* 'sixth' and the Etruscan name *Sestuminas* (Pontecagnano, Campania) built on an Italic form *\*Sestumo-* 'sixth', in turn enlarged from the original *\*seksto-*.<sup>27</sup> A past participle *\*tru-to-* with a superlative suffix is also thinkable, but the root *\*treu-* 'to grow up' is attested in Germanic, not in Celtic, and the consistent use of the passive participle is unlikely (IEW, 1095). By that time the notion of a difference between the ordinal and superlative suffix *-amo-* must have been blurred.

A personal name that might be the hitherto missing Celtiberian word for 'fourth' has passed completely unseen. K.1.3 (Botorrita) attests to a feminine name *Turtunazkue* that is puzzling because it looks like an ablative from PIE *\*-ād* in a context where a place name is apparently not justified.<sup>28</sup> Untermann (Beltrán et al. 1996, 162) has considered it a slip of the pen for a correct nominative †*Turtuna-kue*. He has further identified it, in lack of a better explanation, with a lexeme *turtun-* allegedly present in the Iberian name *Turtumelis*. Still, one can perfectly consider it as the feminine of an unattested nasal stem *\*trut-ū* (a derivative from *\*(k<sup>u</sup>)tru-tó-*, directly comparable with *Tirtu*, *Tirtunos*, *Setantunos* and *Suostunos*, on which see below [p. 17], in that it is based on the ordinal and provided with a nasal individualizing suffix) with the writing <tur> for [tru], cf. *Konterbia* for *Contrebia*.<sup>29</sup> Alternatively, the original form might simply be *\*(k<sup>u</sup>)tur-tó-*, as in Gk. Τυρταῖος, I find the first hypothesis more compelling since in Italy, Gaul and Hispania the usual, attested structure is *trutV-* (below, p. 15). A syllabification *\*k<sup>u</sup>tur-tó-* was rejected by Szemerényi (1960, 79), who reconstructed a truncated PGk. *\*(Tε)-τυρτος* for Gk. Τυρταῖος and Τύρταμος, indirectly supported by Gk. ταρταμόριον, which would not go back to PGk. *\*tarto-* but to *\*tetarto-*. But it is thinkable that Greek, like Italic and Celtic, inherited both *\*k<sup>u</sup>et(u)rtó-* and *\*(k<sup>u</sup>)turtó-*, the second of which was relegated to personal names very early.

<sup>26</sup> Possibly from CCelt. *\*klito-* 'warm' in MW *clyd*, going back to *\*k<sup>l</sup>t-to-*.

<sup>27</sup> Cf. Poccetti 2006–2008. The idea that PINTAMVS was formed on the cardinal with a dental result of an original labiovelar (Tovar 1954, 19 ff.) like OI *pañcama-* 'fifth' cannot be sustained any longer.

<sup>28</sup> Cf. Villar 1995, 8 ff. on the ablative case in Celtiberian.

<sup>29</sup> Cf. Eska 2007, esp. 72.

A further unexplained Celtiberian feminine name *Turtunta* (nom. sg.) in K.1.3 might belong here, too, if it goes back to *\*trutuntā*, equally meaning ‘fourth’. Since some Celtic numeral-based personal names are based on *anto*-forms (see below, fn. 31) and the relationship of *\*trutū-* with its cardinal *\*k<sup>u</sup>etūores* was far from transparent, *Turtunta* may have been created on the analogy of the other names. The process could arguably have been triggered by the ordinal ‘eighth’ (or the name based on it), which may have been an analogical form *\*oxtū-nto-*, replacing *\*oxtāūo-* from IE *\*oktōuó-*<sup>30</sup> and subsequently refashioned as *\*oxtū-meto-*, as in Gaulish OXTVMETO[-] (La Graufesenque) and MW *wythfed* (OIr. *ochtmad* reflects *-ameto-* or *-ūmeto-*).

Osc. *\*truto-* has given rise to the Latin gentilics TRVTTEDIVS, TRVTTEIVS, etc., but not to Latin cognomina. That is why Hispanic names like TRVTILA (Torredonjimeno, Baetica, Visigothic) and especially TRVTI[-] (Clunia), which incline the scales towards a syllabification *CRV-* in the case of the ambiguous *Turtuna* and *Turtunta*, can be provisionally ascribed to Celtiberian.<sup>31</sup> Finally, an inscription from S. Tomas das Lamas (Portugal, 2<sup>nd</sup> c.; AE 1898, 1) reportedly mentions a T(ITVS) FL(AVIVS) FLAV(IANVS) TRV/[T]OB(RIGENSIS), but the original reading is nowadays considered as too daring, and this place name remains thus too hypothetical to lay much weight on it (cf. HEp 1994, 1071).

<sup>30</sup> This ordinal is still attested in a derivative *\*oxtāūjo-* in such personal names as OX-TAIVS (Germania Superior, Lugdunensis) and probably in the genitive sg. OTAI (Rocaforte, Navarra; new reading by Gimeno / Velaza 1994, 200, who interpret it as the genitive sg. of a name *Ota*).

<sup>31</sup> A name TVRANTO BODDECVN (Velilla de Valdoré, León, *Cantabri Vadinienses*), might also belong here, if it has been redone on the analogy of such names as *\*Noūanto-*, *\*Sextanto-*. But, like TVRANTIVS (Castelo Branco), TVRANCICVS (Lara de los Infantes, Pelendones; CIL II 2866) it could be the formation exactly matching Lat. *-tūrāre*, and could go back to a denominative *\*tūrā-ĵ-ont-* like Lat. *-tūrans*, *-antis*. Toponymy sometimes preserves numerals, too. *Turza* (La Rioja, Berones) can be traced back to *\*trutjā* from *\*(k<sup>u</sup>)truto-* with secondary metathesis, thus providing a name of the same numerical series as the instances of *Tritium* or the Vaccaean *Pintia*. There could be some doubts about an inscription from Guadalajara which according to the editors (Cuadrado Prieto / Vallejo Girvés 1997) reads ATTA TVRTOQO(M). Unfortunately, the photograph seems to speak in favour of the alternative reading TVROCO(M) (cf. Stylow 2000). *Toranzo* in Cantabria would then perhaps go back to *\*(k<sup>u</sup>)turanto-*, though of course there are alternative etymological possibilities as we have seen. Finally, the possibility that the southwestern populations known as Τούρτοι or Τουρτοτανοί in Artemidorus of Ephesos (fr. 20; Stiehle 1856, 203), later called *Turdetani*, are related at all, is a territory I dare not tread into.

The above reconstruction of *Turtuna* and *Turtunta* would straightforwardly account for the Celtic evolution: Common Celtic inherited PIE *\*k<sup>u</sup>turtó-* > *\*(k<sup>u</sup>)truto-*, attested in Celtiberian and in Gaulish. Gaul. PAETRVTE bears testimony to an alternative Celtic ordinal *\*k<sup>u</sup>etruto-* that is amenable to a number of explanations, but can only go back to CCelt. *\*k<sup>u</sup>eturto-* or *\*k<sup>u</sup>eturto-*. This form was subsequently abandoned and a refashioned *\*k<sup>u</sup>etuar-ijó-* was generalized in Gaulish and Brittonic, and a form in *-ameto-* in Goidelic.<sup>32</sup>

### 3. Numerals in Hispano-Celtic. The case of ‘fifth’, the reconstruction of the common Celtic numeral system and Lusitanian COMPEDIA, COMPEDIONI

Numerals are a poorly attested word class in Hispano-Celtic. Celtiberian has only revealed a numeral *tekametam* ‘tenth’ from *\*dekametām* (in the formula *aratim tekametam* ‘tithe, partem decumam’, acc. sg.; K.1.1, Botorrita) and its derivative *tekametinas*. The former stage is attested at least in the personal name DECANTILLA in Mandeure, Franche-Comté (Germania Superior; CIL XIII 5412), the ethnic name Δεκανται (Scotland; Ptol. II,3,8), perhaps Gaul. δεκαντεμ ‘tithe’ and the DEAE DEGANTAE in León and Soria (Hispania Tarraconensis). Note that *\*dekanto-*, and not *\*dekamo-*, is the inherited form of the ordinal from PIE *\*dek̑mt-ó-* ‘tenth’ (cf. Szemerényi 1960, 70 ff. 86 ff.; Motta 1993; etc.).<sup>33</sup>

The form *kuekuetikui* at the beginning of K.0.14, the so called “bronze Res”, is obscure and its context hardly understandable, but several scholars

<sup>32</sup> One of the Gaulish potter names on *sigillata* from La Graufesenque is PETRECVS, that seemingly belongs to a series CINTVS, ALLOS, TRITOS, where PETRECVS would be Gaulish for *quártus* (cf. Marichal 1988, 94). Still, many of the names in these texts are Latin or mixed, so PETRECVS, which would be the only case based on the cardinal series, is likely to be a local derivative of Lat. *Petrus* or *Petrō* rather than a western variant of *truto-*, and in fact it is PETVARIOS that fits in its place, since La Graufesenque, unlike Rezé and the Narbonensis, usually attests to the innovative forms only. Hispanic indigenous examples of a base *petr-* are extremely rare, specifically the uncertain reading PETRAVIOI or PETRANIOI dat. sg. (divine epithet; indigenous inscription of Lamas de Moledo, Viseu, probably a place name) and PETRAIOCI gen. sg. (second name; Lara de los Infantes, Burgos, pelendones).

<sup>33</sup> I differ from Schrijver (1995, 274 fn. 2) when he says it is obvious that *\*dek̑mtó-* was remodelled into *\*dekamo-*, later *dekameto-*, when final *-t* was lost in the cardinal, since it seems to presuppose that Celtic speakers had a notion of the ordinals being simply thematized cardinals. There is no proof that a Celtic *\*dekamo-* has existed.

have traced it back to CCelt. *\*k<sup>u</sup>enk<sup>u</sup>eto-* ‘fifth’.<sup>34</sup>

Additionally, some proper names have been related to numerals: thus traditionally *Nouantikum* (family name; K.9.3), from an ordinal *\*nouanto-* ‘ninth’, though an alternative explanation as the present participle of a deadjectival verb matching Lat. *nouāre* is just as likely. Still, NOVANTIA, NOVANTIVS are comparatively common names in Gaul and Britannia and they may perfectly have a numeral origin and then have been reinterpreted when the actual ordinal was refashioned and their semantics had become ambiguous.

The personal name *Suostunos* (K.1.1, B-5) comes from an ordinal *\*sueχs-to-* ‘sixth’ according to MLH IV and Rubio Orecilla (2003, 154), and so does the place name *Suessatio/Suestatio* (Álava, *Caristii*) according to Tovar (1954, 19).<sup>35</sup> A number of personal names in a Latinate context bear testimony to the primitive ordinal: SVESTIDIAE (in Verona and the Volscan Privernum) is unlikely to be Italic in view of the irregular preservation of *-y-*,<sup>36</sup> and the gentilic SVESTILIVS (Narbonne) and perhaps SVESTIVS (Skopje, Macedonia) could be Celtic archaisms preserving *-st-* because they were embedded in the Latin naming system before the Gaulish change *-st-* > *-ss-* was consummated.<sup>37</sup> From this indirect evidence of the Celtic ordinal one can infer that Gaul. SVEXOS (La Graufesenque) and SVEXXE (Rezé) go back to original *\*suek̑s-tó-*, the form actually attested everywhere else in the Indo-European languages, and not to a hypothetical thematized *\*suek̑s-ó-* that is structurally impeccable (except that the primitive reconstructed form is *\*suk̑s-ó-*) but unattested.<sup>38</sup> The ordinal was later redone (in Insular Celtic at

<sup>34</sup> Cf. Stifter 2002, 59 ff.; Rubio Orecilla 2003, 154.

<sup>35</sup> Note that the tendency to rounding by which *ue* yields *uo* could be extended to the isolated personal name *Suola*, *Suoli[-]kum* (K.1.3), if from a diminutive formation PIE *\*suH-elo-*, *-eh<sub>2</sub>* ‘little pig/sow’ (> *\*suelo-* > *\*suelo-*), replaced in Gaulish by *Succa*. It also may help refine the etymology of *Ebursunos* in K.1.3 as ‘boar-pig’ (< *\*eburo-sū-*) instead of ‘son of a boar’ (*\*eburo-sūnu-o-*) as I have claimed elsewhere (Prósper 2013, 186).

<sup>36</sup> All the Italic derivatives of PIE *\*suek̑s* do lose their *-y-*, admitting it was there at all and there is no alternative protoform *\*sek̑s*. Cf. the relevant examples, including the Etruscan tradition, in Poccetti 2006–2008.

<sup>37</sup> Note that the Illyrian result is probably *\*sesta-*, to judge from SESTVS and SESTE-NIVS. Anyway, *-y-* disappears in Illyrian when preceded by a sibilant or dental sound, which is incompatible with SVESTIVS. Cf. Mayer 1959, 158.

<sup>38</sup> This idea was first stated by Meillet (1929, 34). The alternative etymology has been already suggested by Schmidt 1992, 200. A syncopated *\*sueχs-eto-* (Hirunuma 1988,

least) as *\*sueχs-eto-* (cf. OIr. *seissed*, MW *chweched*), but personal names reflect an older state of affairs. The Hispanic *Suessetani* belong here according to Schmoll (1959, 48) but the matter is far from clear, since the suffix is likely to be *-etani*, not *-ani*. Finally, Celtiberian *Setantunos* in a *tessera hospitalis* is now plausibly interpreted by Rubio Orecilla (2003, 152 ff.) as a nasal stem derivative from a Celtic ordinal *\*seχtan-to-* ‘seventh’, and is thus comparable to SEXTANTIVS (Carlisle; CIL VII 924).

Some years ago, in a study partly drawing upon previous assertions by Schmoll (1959, 39 ff.), Villar (1994) revisited the western Hispanic personal names PENTIA, PENTOVIVS, PINTAMVS, etc. He came to a number of conclusions which deserve a thorough reappraisal in view of recent findings. His main point is that these names cannot be Celtic on different grounds:

(1) They reflect derivatives of PIE *\*penkʷtó-* ‘fifth’, whereas Celtic only preserves a form *\*kʷenkʷeto-* (Gaul. *pinpetos*, OIr. *cóiced*, OW *pimphet*, MW *pymhed*) like OI *pañcatha-* and Alb. *ipsëte*. Since no language attests to two different forms of this numeral, direct derivatives of *\*penkʷtó-* cannot be Celtic. PINTAMVS shows a westernmost, mostly southern Callaecian and Lusitanian distribution, and the other names are included in the area of the Cantabri Vadinienses and the Vettones. (Intriguingly, there are no extant testimonies from the Callaecia Lucensis, where the ancient and modern compounded place names in *-bri(g)-* are exceedingly well attested.)

(2) Villar explicitly posits a chain of analogies whereby *-eto-* directly spread from *\*kʷenkʷeto-* to the whole series; when the cardinal ended in *m*, it gave rise to extended forms like *seχtameto-* ‘seventh’, from which *-meto-* was metanalyzed and dialectally extended to *-m-*less numerals, as in OIr. *ce-thramad* and Gaul. OXTVMETO[S] (La Graufesenque), OIr. *ochtmad*, etc. This is more or less the same, widely accepted account as, e.g., by Thurneysen (1946, 250), Greene (1992, 515) or Schrijver (1995, 274 ff.).

Under these premises, the unmistakably Celtic personal names that do not fit in the picture are not considered, which calls for an explanation, since lost intermediate stages must somehow be reflected in them. In other words, they are hardly likely to be innovative, and thus worthless for reconstruction, if

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43) must be ruled out. David Stifter (Maynooth) has kindly made the point to me that *\*sueχsto-* would have yielded CCelt. *\*suesto-* very early, which is unable to explain the Gaulish rendition X. Nonetheless I think this result can be put down to the influence of the cardinal somewhere down the line, rather than to the preservation of an extraordinarily conservative form *\*sueχso-*, which would be unique in the Celtic numeral system. This is supported by the above gentilics and Celtib. *Suostunos*.

their vocalism and derivation can be presupposed by synchronic ordinal numbers. If no Celtic language preserves these names as synchronic numbers, changes must have taken place at a comparatively unitary stage of Celtic. Unless numeral systems and onomastics based on numerals are somehow disparate phenomena, that is, unless numeral based names are proved to be separately subjected to *systematic*, and not only individual changes of their own, today’s formational constants in numeral based names are probably indicative of the morphology of yesterday’s numbers (see below [p. 21 f.] on the *-amo-*variants).

(3) When facing the problem of initial *p*, Villar rightly excludes that the western Hispanic personal names are Gaulish, and then he dismisses the possibility that they can be Celtic at all on the grounds that this would require the existence of an unknown Celtic dialect. One may object that at least one Hispano-Celtic dialect must have existed in western Hispania, and it actually shows the required labialization of the voiceless labiovelar (cf. Prósper 2013, 190). Thus, *p-* is not necessarily the straightforward result of initial *p* in a non-Celtic language, but has a more complex history.

As long as the forms based on the archaic variant *\*penk<sup>u</sup>tó-* are names, the argument that they are incompatible with celticity does not hold water. *Reliktformen* are so to speak put aside when they are replaced by new forms in the synchronic numeral system, which is nothing else than what Kuryłowicz’s fourth Law of analogy states: The synchronically irregular form may be preserved if given a secondary function or meaning. There is exactly the same development in Indo-Iranian: AV *pañcamá-* and Skt. *pañcathá-* ‘fifth’ are refashioned forms, but the original ordinal *\*pñk<sup>u</sup>tó-*, itself older than the widespread form *\*penk<sup>u</sup>tó-*, is preserved in the personal name *Paktha-* ‘Quintus’ and in frozen phrases like RV X,61 *pakthé áhan* ‘on the fifth day’, and *mutatis mutandis* in Av. *puxša-*.<sup>39</sup> To assert that Common Celtic has inherited the innovative *\*penk<sup>u</sup>eto-* from a former language stage just because Sanskrit and Albanian share the same innovation is a *petitio principii*, now gain-said by the form PIXTE. Furthermore, the evidence suggests that this replacement happened more than once, relegating more than one historical layer of ordinals to the role of proper names.

At a second stage, the unattested ordinal *\*sextamo-* (lost) and *\*noṽano-* (attested in Gaul. NOVANVS, Celtib. NVANE)<sup>40</sup> were enlarged by means of

<sup>39</sup> Cf. Emmerick 1992, 181; Blažek 2000, 110 ff.

<sup>40</sup> NVANE VX(AMENSI) dat. sg. (Ávila). A change *-ou-* > *-uu-* is already attested in Celtiberian.

-to- on the analogy of *\*(k<sup>u</sup>)tru-to-/\*k<sup>u</sup>etru-to-*, *\*k<sup>u</sup>enk<sup>u</sup>-to-*, *\*sueχs-to-* and *\*dekant-o-* (reanalyzed as *\*dekan-to-*), thus yielding *\*sextanto-* and *\*nouanto-*, the ancestors of the attested names *Setantunos*, *SEXTANTIVS*, perhaps Celtib. *nouantikum* and *NOVANTIVS*. Additionally, *\*oχtāuo-* (in *OXTAIVS*, etc.) was possibly replaced by *\*oχtū-nto-* as deduced from its indirect reflex *\*trutū-nto-* in Celtib. *Turtunta*. This would explain the innovative *\*oχtūn* in OBret. *eithnec* ‘eighteen’ as a back formation, as well as the nasalizing effect of OIr. *ocht*.<sup>41</sup> Some authors have clearly noticed that these forms are somehow ‘older’ than the synchronic numerals, but no diachronic explanation is normally given for the whole system.

There is no trying to ascertain how this analogical process is chronologically related to *\*k<sup>u</sup>enk<sup>u</sup>-to- >> \*k<sup>u</sup>enk<sup>u</sup>eto-* since, as we have seen, this is not the only possible source for the spread of the suffix *-to-*. But we have to bear in mind that Common Celtic could have inherited the by-forms *\*sextanto-* and *\*nouanto-* side by side with the simpler ones, since they are also attested in other languages, although these processes may be largely independent. One could be tempted, however, to conceive of the *-anto-/ant-(i)io-* forms as a different semantic and morphological class from the ordinals, for instance as collectives designating groups of items, or even fractions, like Lat. *quādrans* and *octāns*. While this could be true sometimes, it is hardly tenable as a general explanation for personal names attested in such distant Celtic dialects.

At the third stage, those forms have been in their turn relegated to the role of proper names, a more transparent *\*k<sup>u</sup>enk<sup>u</sup>e-to-* has been substituted for *\*k<sup>u</sup>enk<sup>u</sup>-to-* in the numeral system, and *\*k<sup>u</sup>enk<sup>u</sup>eto-* has influenced the rest of the series, giving rise to *\*sextam-eto-* (in Gaul. *SEXTAMETOS* at La Graufesenque, MW *seithfed*, OIr. *sechtmad*), *\*oχtū-m-eto-* (Gaul. *OXTVMETO[S]* at La Graufesenque, MW *wythfed*; OIr. *ochtmad* comes from a secondary variant in *-ameto-*, *\*nouam-eto-* (Gaul. *NAMETOS* at La Graufesenque, Mir. *nómad*, MW. *nawfed*), and *\*dekam-eto-* (Gaul. *DECAMETOS* at La Graufesenque, *PETRVDECAMETO CIL XIII 2494*, Celtib. *tekametam*, MW *degfed*, OIr. *dechmad*). *\*sueχs-eto-* may be a later formation, however, since Gaulish

<sup>41</sup> Cf. Greene 1992, 540. Other parallel processes are, for instance, the creation of a Latin month attested in epigraphy (6<sup>th</sup> c.) and some Romance languages as *OCTIMBRIS*, the refashioned genitive sg. of *october* (see Poccetti 2006–2008, 261 f.), Homeric Gk. *ὀγδό(μ)ατος* and Toch. A *oktānt*, B *oktante* (with a hapax *oktunte*!) and PGmc. *ah-tundan-* ‘eighth’, preserved in ODan. *ætundi*, OSwed. *ætunde*, Lith. *aštuūntas*, built on the analogy of *\*septm-to-*.



preserves SVEXOS in La Graufesenque side by side to the whole of the innovative variants.

Mere substitution of *-eto-* for *-to-* has the advantage of restoring the identity of the final *m* of the ordinal and creates a subsystem of similar *-C-eto-* structures. Note that the presupposed analogical proportion is more satisfactory since it simply creates a comparatively homogeneous series of synchronically existing cardinals enlarged by a suffix *-to-* which are subsequently clarified as cardinals + *-eto-*, whereas direct addition of *-etos* and the subsequent metanalysis of *-metos* is a merely descriptive account, but it is never really explained how the *-m-* in *\*sextam-eto-* could be resegmented as part of the suffix at a time when *\*sextam*, *\*nouam*, *\*dekam* still existed.<sup>42</sup> Why *\*k<sup>u</sup>enk<sup>u</sup>ameto-* and *\*sueχsameto-* were never created remains a mystery under such an assumption. Metanalyzed *-meto-* variants do exist, anyhow, and they belong to the later history of the Goidelic branch, where *cethramad* may have replaced older forms probably by imitation of the deviant *ochtmad*, which could be associated to no cardinal in *-m*. In fact, I think Celtic has simply gone one step further in the analogical process that has given rise to the *-to-* ordinals of many branches: Lith. *septiñtas*, Toch. A *ṣäptänt*, PGmc. *\*sebuñpan-* ‘seventh’; Toch. B *oktante*, PGmc. *\*axtuñpan-*, Lith. *aštuñtas* ‘eighth’; Gk. ἔνατος, Toch. B *ñunte*, PGmc. *\*newundan-*, OCS. *děvenŭ* ‘ninth’, etc.

As for western Hispanic PINTAMVS and Gaulish TRVTMO, both lead to think that the forms *\*k<sup>u</sup>enk<sup>u</sup>to-* and *\*(k<sup>u</sup>)truto-* were optionally enlarged on the analogy of synchronic *\*sextamo-*. If this is so, the enlarged *-amo-* forms must have allomorphically coexisted for a while with the simpler variants that finally survive; the attempt at a consistent spread of *-amo-* to the lower part of the numeral series was aborted somewhere down the line. We have to allow for partial overlapping, that is, for the possibility that these forms were created at a stage when CCelt. *\*(k<sup>u</sup>)truto-* and *\*k<sup>u</sup>enk<sup>u</sup>to-* were losing ground as numerals and increasingly used only as names, or even after the split-up of Celtic, when they had been completely given up, and then *\*trutamo-* and *\*k<sup>u</sup>enk<sup>u</sup>tamo-* would be confined to some dialectal varieties. At that time, *\*sextamo-* (and probably *\*sextanto-* and other *-anto-* names), *\*nouano-*, *\*(k<sup>u</sup>)truto-* and *\*k<sup>u</sup>enk<sup>u</sup>to-* were just personal names. *\*sextamo-* may have triggered the creation of trisyllabic names characterized by *-amos* from the

<sup>42</sup> Note that in the case of PIE *\*h<sub>1</sub>neun̥* ‘nine’ (whose *-n-* is preserved in the ordinal *\*nevano-*) one may assume a primitive Celtic neutralization of final *n* and *m* or simply an analogical cardinal *\*nouam*. The alternative account would in fact face the same difficulties in justifying the result *\*nou-ameto-* instead of, e. g., *\*nouan-eto-*.

shorter ordinal names, since their morphological relationship with their respective cardinals was already blurred, and it may be mere chance that we have found no *\*tritamo-* yet. In contrast, a resegmented *\*sext-amos* inside the ordinal system is less likely if the cardinal was *\*sextam*, and it would be so primitive that the remodelled ordinals or their derivatives would be still in use as such somewhere. There is no trace of the marginal variants *\*k<sup>u</sup>enk<sup>u</sup>t-amo-* and *\*trutamo-* ever becoming *\*\*k<sup>u</sup>enk<sup>u</sup>tanto-* and *\*\*trutanto-* anywhere, and *a fortiori* no *\*\*k<sup>u</sup>enk<sup>u</sup>tameto-* or *\*\*trutameto-* have existed.

In fact, this may well be the explanation of Gk. Τύρταμος, which, unless it is a dialectal by-form of the ordinal, may never have been a proper numeral but is nevertheless Greek, and of the Italic form underlying Etruscan *Sestuminas* (which as noted by Poccetti 2006–2008 may have been part of the numeral system of a Sabellic dialect but may alternatively have been enlarged after it was integrated in the onomastic system). The same considerations apply to PINTOVIVS, explained by Villar (1994) as the product of contamination with the ordinal *\*ok̄tōyo-* ‘eighth’. Then, everything points to a suffix transfer from the increasingly frozen form in *-ōyo-* to ordinals that still existed both as numerals and as names, and only in so far as they functioned as names. Since this result of *-ō-* would be clearly anomalous in Celtic, this might point to the non-celticity of PINTOVIVS, and, contrariwise, would point to the celticity of PINTAVIVS. Still, K.1.3 (Botorrita) has revealed a Celtiberian name *tirtouios*, which could mean that PINTOVIVS is Celtic after all, and consequently unrelated to *\*ok̄tōyo-*. The variant in *-ōyo-* > *-āyo-* could underly the Gaulish ethnic name *Pictavī*, however.

Summarizing, I believe the situation was very much like this before the split-up of the Celtic unity:

- \*k<sup>u</sup>etruto-* (synchronic? extant only in Gaulish)
- \*(k<sup>u</sup>)truto-* (in names, with the variants *\*truto-amo-* after *\*sextamo-* and *\*trutū-n-to-* after *\*ox̄tū-n-to-*) and *\*(k<sup>u</sup>)tur-ijō-* (in names, cf. Hispano-Celt. TVRROS)
- \*k<sup>u</sup>enk<sup>u</sup>-to-* (in names, with the variants *\*k<sup>u</sup>enk<sup>u</sup>t-amo-* after *\*sextamo-* and *\*k<sup>u</sup>enk<sup>u</sup>t-oujo-*) >> *\*k<sup>u</sup>enk<sup>u</sup>e-to-* (synchronic)
- \*sueχsto-* (synchronic) >> *\*sueχs-eto-* (Insular Celtic at least, after *\*k<sup>u</sup>enk<sup>u</sup>e-to-*)
- \*sextamo-* (lost) >> *\*sextan-to-* (in names, after *\*(k<sup>u</sup>)truto-*, *\*k<sup>u</sup>enk<sup>u</sup>-to-*, *\*sueχsto-*, *\*dekanto-*) >> *\*sextam-eto-* (synchronic, after *\*k<sup>u</sup>enk<sup>u</sup>e-to-*)
- \*ox̄tū/āyo-* (in names, perhaps indirectly in PINTAVIVS, *Pictavī*?) >> *\*ox̄tū-n-to-* (indirectly in Celtib. *\*trutū-n-to-*) >> *\*ox̄tū-m-eto-* (synchronic, after *\*k<sup>u</sup>enk<sup>u</sup>e-to-*)
- \*nouano-* (in names) >> *\*nouanto-* (in names, after *\*(k<sup>u</sup>)truto-*, *\*k<sup>u</sup>enk<sup>u</sup>-to-*, *\*sueχs-to-*, *\*dekanto-*) >> *\*nouam-eto-* (synchronic, after *\*k<sup>u</sup>enk<sup>u</sup>e-to-*)
- \*dekanto-* (in names and specialized meanings) >> *\*dekam-eto-* (synchronic, after *\*k<sup>u</sup>enk<sup>u</sup>e-to-*)

The deviant form *\*(k<sup>u</sup>)truto-* could not be expected to survive as a numeral into the individual languages due to its lack of transparency, and apparently nor did *\*petruto-* except in conservative areas, and then with a seemingly specialized meaning. To deny that this process may have been completed by the time the Celtic unity split up adds up to denying the celticity of both the Hispanic and the Gaulish names that bear witness to the intermediate stages, and which both for morphological reasons and the inner logic of onomastic creation and renewal, cannot be explained the other way round, that is, as idiosyncratic deviations from the numeral system as usually reconstructed.

Of course this is a weak hypothesis in that it tries to show that all forms are amenable to explanation under a unitary chain of events. It asserts nothing, however, about the very real possibility that some of the Hispanic forms belong to a different branch of Indo-European. Whereas some areas are characterized by Celtic names, other regions show an inextricable dialectal mixture most likely to embrace Celtic and non-Celtic speakers. PENTIVS, PINTIVS, PINTAMVS and PENTOVIVS, as pointed out by Villar (1994), are, from a purely formal point of view, archaic and consequently not specific formations that, in themselves, can be ascribed to virtually any of the Indo-European peoples that have ever set foot on the Iberian Peninsula. On the other hand, PENTIVS and its variants are not really peculiar to Hispania, since PENTIVS is attested at least twice in Trier (Belgica; AE 1994, 1240) and Westerndorf (Rhaetia; CIL III 6010), PINTIA (Nemi, Latium et Campania; CIL I 1437). Additionally, their geographical distribution inside Hispania does not really match that of independently identified non-Celtic dialects.

The recently uncovered form PIXTE (Rezé) clearly leads to think that PIE *\*penk<sup>u</sup>tó-* had been dialectally preserved or was still used in Celtic for some specialized purpose. It has undergone assimilation of labiovelars and raising of the stem vowel (*\*penk<sup>u</sup>tó-* > *\*k<sup>u</sup>mk<sup>u</sup>tó-*), dissimilatory delabialization of the second labiovelar (*\*k<sup>u</sup>mkto-*), labialization of the first labiovelar (*\*p<sup>u</sup>ŋkto-*), fricativization of the velar in contact with *-t-* (> *\*p<sup>u</sup>ŋχto-*), and eventually loss of the nasal before a fricative and compensatory lengthening (perhaps with accompanying nasalization) of the preceding vowel (> *\*p<sup>u</sup>īχto-*). Additionally, a number of hitherto unexplained names from ancient Gaul or Germania obtain a clear etymology: PIXTACI (Langres), PIXTICENVS (Bordeaux, Aquitania), PIXTILLVS (Lyon, Paris), as correctly remarked by Lambert, who adds the ethnic name *Pictones*. This development exactly matches the one reconstructed for Latin *quīntus* by some authors at least, although occasional attestation of the nasalless form such as QVICTILIS (CIL I 1035), perhaps the gentilic *Quictius* in Livy and the Fasti Capitolini, and the Faliscan personal

name CVICTO are hardly diagnostic in view of the tendency of nasals to be omitted in codas in fast writing (cf. the clarifying account by Méndez Dosuna 2007). In Italy, names such as Ven. *Kvito* (Es 99) and, in a Celtic context, *Kuitos lekatos* (S. Bernardino di Briona), if they are Latin loanwords as has been repeatedly argued, may equally show defective writing (Marinetti 1995, 178 ff.) or directly attest to a pronunciation [kʷɪχto-].<sup>43</sup>

Most accounts of Latin *quīntus*, however, claim it has never lost its nasal and vaguely explain away the long vowel, if at all, as the outcome of the loss of the velar fricative or a “weakening” of one or both of the sounds following the vowel: e.g. *\*kʷenkto* > *\*quīnχtus* > *\*quīnχtus* > *quīntus* (cf. de Vaan 2008, s.v. *quinque*). This evolution is not convincing, since it is doubtful that it could have caused a lengthening at all; it is additionally inconsistent with the fact that nasals are lost before other voiceless fricatives, and consequently is only intended to justify the final step of the phonetic evolution, not the intermediate stages, and does not take account of the *nux* of the problem, this being the natural articulatory incompatibility of nasals and fricatives.<sup>44</sup> Finally, it does not allow for the pressure of spelling conventions.<sup>45</sup>

<sup>43</sup> Cf. Allen 1965, 66: “It is probable that in this environment the *c* was first reduced to a fricative [χ] [...] and before this fricative there occurred the same loss of *n*, with nasalization and lengthening of the preceding vowel, as before the fricatives *s* and *f* [...] subsequently the [χ] was lost, and since the long *ī* was now followed by a plosive and not a fricative, the nasalization was in turn replaced by *n*, whence *quīntus*, the attested form.” This evolution is impeccable as stated and it is the only reasonable way to account for the compensatory lengthening, as shown by the structurally similar Lat. *sānctus*, Osc. *saahtram*, Umbr. *sahta*, etc. Exactly the same phenomenon took place in Germanic: e.g., the preterit form of the English verb *to think* has gone through the stages PGmc. *\*þanχta* > *\*þāχta* > OE *þōχte* > *thought*. Kavitskaya (2002, 60) ignores this uniform account and states that “in Latin, *n* was lost before voiceless fricatives and the voiceless stop [k], yet another illustration of the phonetic tendency to lose nasals before voiceless fricatives and voiceless segments in general”. Of course there are other kinds of non-compensatory lengthening, like that of late Old English nasals before homorganic voiced stops, but this is clearly not the same case.

<sup>44</sup> Cf. a neat account in Méndez Dosuna 2007, 358 ff. The process is triggered by the difficulty of achieving perfect timing between the oral closure of the nasal and the oral opening of the voiceless fricative, that eventually leads to the weakening and loss of the nasal.

<sup>45</sup> The strong written tradition of Latin as well as the analogy of *quīnque*, which in its turn owes its long vowel to *quīntus*, must have played a crucial role in the reinsertion of *-n-*. Artificial reinsertion of *-n-*, lost forever before a fricative, or direct adoption of words from written Latin, is a constant in the Romance languages, and that is why we have Sp. *cónsul*, *ensor*, in spite of some of the oldest Latin inscriptions already read-

Additionally, the Gaulish forms suggest that the whole story is false. Gaulish PIXTE has obviously gone through a different phonetic process from the Hispanic examples PENTOVIVS, PINTAMVS, etc., which invariably lose the velar segment, and where the alternation E ~ I points to the original vowel /e/ being contextually raised. The distribution shows a more pronounced tendency towards the preservation of -e- in PENTIVS and PENTOVIVS among the Cantabri Vadinienses as opposed to raising in southern and western regions (Astures, Vettones, Callaeci). PINTAMVS shows no variants and PENTILIVS, PINTILIVS show no clear distributional differences and are comparatively southern forms, perhaps equatable with the gentilics QVINCTILIVS and PONTILIVS and Gaulish PIXTILLVS (see above, p. 23).

Since the Hispanic forms have -n- but show no trace of -k<sup>u</sup>-, the most economical scenario would presuppose a chain \*k<sup>u</sup>enk<sup>u</sup>to- > \*k<sup>u</sup>inkto- > \*p<sup>i</sup>ηχto- > \*p<sup>i</sup>nto- probably under the influence of the cardinal, rather than \*k<sup>u</sup>enk<sup>u</sup>to- > \*p<sup>i</sup>mpto- (delabialization -k<sup>u</sup>t- > -χt- is early in Celtic). In other words, the names \*P<sup>i</sup>χto- and \*P<sup>i</sup>nto- could be the outcome of the same structure in different Celtic dialects (cf. the histories of OHG *fimfto* vs. OE *fiffta* vs. ODan. *fæmtæ*, from PGmc. \**fimftan*-). The Gaulish result with compensatory lengthening is otherwise attested in Insular Celtic at least for words containing an original velar: OIr. *técht* ‘frozen’ < PCelt. \**tanχto*-, etc.

That the woman bearing the feminine name PEMPT(A)E NAT(IONE) DALMATA (Rhaetia; CIL III 5913) is a “gauloise de Dalmatie” (Delamarre 2007, 148) cannot be proved, and, apart from its thinkable Greek ancestry, it may be ascribed to an Indo-European dialect with the trivial change -k<sup>u</sup>- > -p- and traced back to \**penk<sup>u</sup>tos* without further ado.

Note that the Sabellic cognates of Lat. *quīntus*, like Osc. POMTIS ‘five times’, crucially fail to show lengthening, too. As WOU (604) rightly stress-

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ing COSOL and CESOR. As Allen (1987, 21 ff.) remarks, a nasal in front of a fricative (in turn from a voiceless aspirate) has been lost and later reinserted in Greek because of its millenary written tradition, but its pronunciation is weak. Pace Coleman (1992, 411), the form [Q]VEINCTIVS (CIL I 1547) only proves that the vowel was by that time phonetically long, not that the nasal was retained all along, since phonetic writing seldom overrides the written tradition and only when it does do we have a clue about the actual chronology of the phonetic processes. If he were right, there would be no such thing as “spelling pronunciation”, a commonplace phenomenon that simply imposes a less abstract one-to-one correspondence between the phonetic and graphic levels, thus artificially reinstating a former phonetic stage. And there would be no way of explaining why we have EIMFERIS in CIL XV 6265 but IFEROS in CIL IX 5813, OPort. *iferno* but MPort. *iferno* and Sp. *infierno*.

es, we would rather expect an evolution *\*kʷenkʷto-* > *\*kʷenkto-* > *\*quonkto-* > *\*ponχto-* > *\*pōχto-* > *pūhto-*, so that this form, like the Sabellic *nomina gentilia* *πομπτιες* (Messina), *púntiis* (Pompeii), etc. must have been influenced by the cardinal. However, one could argue for a different Sabellic behaviour of the labiovelar in this context, yielding *\*kʷonkʷto-* > *\*pompto-* > *\*ponto-* (see a similar account in Meiser 1986, 98 ff.). Consequently, any explanation that is valid for the Sabellic words could apply to the dialect of the western Hispanic forms, Celtic or non-Celtic.

As Poccetti (1995, 248) remarks, there is a parallel set of Latin personal names based not on the ordinal, but on the cardinal series: This includes the obviously Sabellic praenomina *Petrō* and *Pompō* and the gentilics *Petrōnius* and *Pompōnius*, as well as *Pompeius* and *Pompilus*. This later name is matched by a personal name PVMPI (gen. sg.) in the recently uncovered Lusitanian inscription of Arronches (Portalegre, Lusitania Pacensis).<sup>46</sup> Sabellic at least has a form *\*kʷonkʷe* ‘five’ whose vocalism is ascribed to a secondary, dialectal assimilation of /e/ to the preceding labiovelar. Another hitherto unexplained set of forms from the Vetton area may be based on the numeral ‘five’:

COMPEDIONI dat. sg. (Salamanca, Lusitania Emeritensis; HEp 1997, 648);

COMPEDIA (Yecla de Yeltes, Salamanca, Lusitania Emeritensis; CIL II 5035);

COMP(-) is the beginning of four truncated words in a double epitaph (Melgaço, Viana do Castelo, Portugal, Callaecia Bracarenensis; HEp 2002, 670).

No etymological interpretation of these forms has ever been advanced, except for that of Albertos Firmat (1972, 29), who established a *prima facie* relationship to Lat. *compedēs* ‘fetters’. This approach is not very promising, however, since these names are hardly Latin, though an indigenous, non-Celtic *\*kom-ped-* (literally meaning ‘sharing feet’?) could be envisioned. I claim this may be a numeral-based name coming from *\*penkʷ-edjō-* that has undergone the following evolution: *\*kʷenkʷedjō-* (by Italic or Celtic assimilation of contiguous *\*p\_kʷ-*) > *\*kʷonkʷedjō-* (by vowel rounding when preceded and followed by a labiovelar) > *\*konkʷedjō-* (by dissimilatory loss of the labial coarticulation in the first labiovelar) > *kompedjō-* (by labialization

<sup>46</sup> The ethnic name EX GENT(E) PEMBELOR(VM) (Cangas de Onís, Asturias, seemingly a tribe of the *Orgenomesci*; CIL II 5729) is not, according to Prósper (2008, 116, with references) of numeral origin, but a compound *\*kʷenno-belo-* ‘big headed’ with syncope of the atonic thematic vowel in the neighbourhood of nasals and liquids well attested all over Hispania at different times (cf. the relevant examples in Prósper 2012, 61; 2013, 186 ff.).

of the second labiovelar). The Latin numeral *quīnque* ‘five’ has evolved into Sp. *cinco* (not †*quinco*), Fr. *cing*, It. *cinque*, with a similar dissimilation of the first labiovelar that is already attested in a number of Latin inscriptions reading CINQVE.

This explanation permits to compare this name with some Italic derivatives of *\*penk<sup>u</sup>e*, like Lat. *Pumpilius*, etc. The Latin names attested epigraphically as PONTIDIVS and PONTEDIVS are derivatives of an ordinal name PONTIVS to which a Sabellic origin *\*k<sup>u</sup>onk<sup>u</sup>tijō-* ‘fifth’ is usually accorded, just like TRVTEDIVS is based on the ordinal ‘fourth’. Interestingly, a personal name POMPEDIVS is attested in an epitaph from Vienne, Gallia Narbonensis (CIL XII 2092) and perhaps in POMVEDIVS in Norcia, Samnium (AE 1983, 309). The classical sources mention a senator *Pompedius* (Ios. ant. Iud. XIX,33) that possibly needs emendation, and an officer called *Pompedius Silo* involved in the social wars.<sup>47</sup> The only *nomen* built as a derivative of a cardinal base ‘four’ with a suffix *\*-edjō-* is C(AI) PETRIDI in Oderzo (Venetia et Histria; AE 1979, 272).

Since derivatives of the cardinal series are very usual in Italic, but not in Celtic, COMPEDIA and COMPEDIONI are not likely to belong to a Hispano-Celtic dialect.<sup>48</sup> Furthermore, rounding of PIE /e/ in this particular nasal context is not common in Celtic.<sup>49</sup>

<sup>47</sup> This naming scheme has become productive enough for *-edjō-* to be indiscriminately added to numeral based gentilics: We have many cases of POMPVSIDIVS in Rome, and several of POMPVLLEDIVS in Samnium, as well as POMPAEDIVS in central Italy. So, there is no need to reconstruct Gaulish compounds such as *\*pompū-sidius*, *\*petru-sidius*, since we are dealing with a variety of derivatives from Sabellic names attested mainly in the Italian Peninsula (*pace* Delamarre 2007, 149 ff.), although PETRVCIDIVS, showing the first effects of palatalization of *-ci-* or simply derived from *Petrucius*, is mostly Hispanic.

<sup>48</sup> In itself, this chain of assimilations and dissimilations is compatible with Celtic and attested in Hispanic dialects about which we know very little. I have argued (Prósper 2013, 189 ff.) that the ethnic name *Coporī* in Pliny IV,111, a tribe of the *Callaeci Lucenses* that is perhaps also indirectly attested in personal names all over western Hispania, means ‘the cooks, the bakers’ and has undergone an evolution approximately like the following: PIE *\*pe/ok<sup>u</sup>-* + *-ero-* ‘cook’ > CCelt. *\*k<sup>u</sup>ok<sup>u</sup>ero-* > *\*k<sup>u</sup>ok<sup>u</sup>oro-* > *\*kok<sup>u</sup>oro-* > *\*koporo-*. Its Gaulish counterpart, attested in personal names, is the simple agent noun *\*poppo-*, that comes from *\*pok<sup>u</sup>o-* like Lat. *cocus*, and cf. Bret. *pober*, W *pobwr*, Co. *peber* ‘baker’.

<sup>49</sup> It is attested in Goidelic *cóic* but not in Brittonic: Cf. OW *pimp*, OBret. *pemp*, Co. *pym*. As for Continental Celtic, the Oderzo form POMPETEGVAIOS ‘quinglingual’ is considered as “entirely Celtic” by Eska (1999, 133). This inscription is full of ano-

There is, however, a possible Celtiberian exception to the generalization that Celtic names never come from the cardinal form: I interpret the PN †*Pingū* underlying the Celtiberian family name PINGANCO (Coruña del Conde, Burgos; CIL II 2803), which now finds a cognate in a form PIGANCO transmitted by a late manuscript (Gimeno 1997, 797), as an exact equivalent of Lat. *Pompō*: it has undergone the changes *\*k<sup>u</sup>enk<sup>u</sup>-* > *\*k<sup>u</sup>mk<sup>u</sup>-* > *\*k<sup>u</sup>mk-* > *\*pmk-* > *\*pmg-* (the exact ordering of these changes is debatable).

#### 4. A numeral based Celtic divinity from Catalonia

A votive inscription reading

D(EO) SEI/TVND/O ARA(M) / VOTI/VAM  
[C]AMPANVS ET MAXIM(VS)

was found in the sanctuary of Coll (Gerona, Catalonia) and edited by Mayer / Rodà (1985). These scholars have dated it to the 2<sup>nd</sup> century and they have remarked that the divine name has a definitely Celtic look, although the alleged symptoms of celticity, such as the diphthong EI or the sequence ND are inconclusive, given the lack of further arguments.

In fact, I believe that this particular divine name is not only Celtic, but important in many respects. Given that SEITVNDO is not a Roman divine name (we are, on the other hand, completely in the dark as regards the Iberian pantheon), and since a PIE root *\*sejt-* does not exist, I trace it back to a Hispano-Celtic ordinal *\*sextunto-* ‘seventh’. I have contended above that, although the synchronic ordinal for this numeral was *\*sextametos*, such names as *Setantunos* and British SEXTANTIVS (Carlisle; CIL VII 924) point to an intermediate stage *\*sextanto-* between the synchronic *\*sextameto-* and PCelt. *\*sextamo-*.

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malies, and the personal name preceding this form, PADROS, is explained by Eska as Latin (a secondarily thematic *quadru-*, which exists nowhere else) in a Lepontic speech area. But, if ‘quinglingual’ was the epithet *Padros* received in Lepontic, but then he moved back to the Venetic area, where he died, subsequent interference may have taken place. Summarizing, it may be true that a Gaulish dialect has undergone the same assimilatory process, but the evidence is flimsy and can be suspected of Italic influence. – The phytonym πομπε-δουλα, with a variant πομπαι-δουλα ‘(with) five leaves’ in Dioscorides (cf. André 1985, 193) remains an enigma. The compositional process of this particular form looks Celtic: A recently uncovered British inscription mentions a genitive sg. VODVLLI (Trier), which may be a possessive compound *\*duo-dullo-* ‘having two leaves’ (like a sword?), not a compound of *\*upo-* as the editors claim (Colling / Muller 2011, 179).



The PIE ordinal numeral *\*septm-(H)ó-* was formed by mere thematic derivation from the cardinal *\*septm:*<sup>50</sup> cf. Skt. *saptamá-*, Lat. *septimus*, Gk. ἑβδομος, Opr. *septmas*, OLith. *sėkmas*, possibly the Hitt. derivative *siptamiya-* and the Cappadocian female name *Saptamaniga* ‘the seventh sister’. A secondary variant *\*septm-t(H)ó-* is usually taken to be monoglottic in spite of being surprisingly widespread (Ved. *saptathá-*, Lith. *septiñtas*, Toch. A *šäp-tänt*, B *šuktante* and PGmc. *seþunþan-* ‘seventh’). It probably came into being under the influence of *\*dekantó-*, itself a thematic derivative from the PIE cardinal *\*deķñt* ‘ten’, which must have been reanalyzed early in Indo-European as *\*deķñ-tó-* when the cardinal lost its final *t*.

A *tabula hospitalis* from Vila Nova de Gaia (Bracarensis, Portugal, 9 AD) contains two instances of the onomastic formula LVGARIVS SEPTANII (Ferreira da Silva 1983). The letters I and T are difficult to distinguish, however. This is why a reading SEPTANTI must be considered. An indigenous name *Septantius* cannot possibly be labelled as Celtic, which means that Lusitanian had preserved an ordinal *\*septm-t(H)ó-*. *\*septanius* is equally unattested and consequently has nothing to recommend itself, but it can be analyzed as a Lusitanian name based on the cardinal: *\*septm-ió-* would then be directly comparable to PVMPI in Portalegre, from *\*k<sup>u</sup>enk<sup>u</sup>(e)-iό-*, and the nasal would have been contextually delabialized.

Additionally, the phonotactic sequences *-unto-* and *-undo-* are acceptable in Latin after the lowering of /o/ in the sequence *-oR.C-*, as in the gerundives of the type *oriundus*, but infrequent ones in Celtic, and consequently secondary. I have argued above (p. 15) that the Celtiberian feminine name *Turtunta* in K.1.3 goes back to *\*trutuntā* ‘fourth’, which has been created in analogy to other names of numeral origin. The process was triggered by the ordinal *\*oxtū-nto-* ‘eighth’ (or the personal name based on it), later refashioned as *\*oxtū-meto-* in Celtic.

Therefore, the preform *\*sextunto-* is a missing link in so far as it is contingent upon the existence of the following number *\*oxtūnto-*. Since in all likelihood none of them was a synchronic ordinal any more, we should refrain from making guesses about the real meaning of *\*sextunto-* in its cultur-

<sup>50</sup> I reconstruct this form on structural grounds. However, both the Balto-Slavic and the Greek forms are usually taken to go back to *\*septmó-*. Greek ἑβδομος vs. ἑβδεμος in the western dialects is said to owe its voiced cluster to the immediate contact with *-m-* (cf. Waanders 1992, 380). But once the close relationship with the cardinal was destroyed by voicing of the medial cluster, there is no explanation of why the resulting word was not simplified into <sup>†</sup>ἑδμος, nor repaired as <sup>†</sup>ἑπταμος.

al and religious context. Given the existence of Celtib. *tekametam*, \**sextam-eto-* probably existed in Celtiberian, too, and it is unlikely that it has been replaced by \**sextun-to-* somewhere down the line. \**Sextun-to-* probably had an independent story as a name and may have never been used as a numeral (like PINTAMVS or TIRTOVIVS) although new discoveries may lead to a different conclusion.

SEITVND0 contains a number of remarkable peculiarities: It continues the bare form of the ordinal, not enlarged by an individualizing *ū*-suffix. EI is not an original diphthong, but the sequence EIT reflects an original *-eɣt-*. This subphonemic result of PIE *-Vpt-* and *-Vkt-* must have known an early context-bound variant *-eçt-* that evolved into *-eiçt-* and finally *-ei̯t-* in several Celtic dialects, like Welsh and, crucially, the dialect of the Arevaci.<sup>51</sup> The string ND is the result of voicing of a voiceless stop when preceded by a nasal segment. This feature is typical of the language of a vast number of Celtiberian populations. It is well attested in Aragón, witness LETONDONIS, BOLGONDISCVM, TINDILICVM in K.1.2 (Botorríta), etc.

Mythological or magical nuances are lost on us, but ‘seven’ is a magical number in the Celtic culture(s) as in many others. Indo-European divinities often appear in groups of seven: This is the case of the seven daughters of the sea in Irish, or the seven Baltic ruling goddesses; in both instances they spin personal fate like the Parcae, and each of them is accorded a specific function. Seven-fold division is well known in the *Ṛgveda* and applies to rivers, mountains, heavenly abodes and divinities, notably the Ādityās, the seventh of whom is said to exist but not mentioned, although he is usually identified with Sūrya, the sun; he is in turn characterized by attributes coming in groups of seven, like ‘seven rays’ and a ‘seven-wheeled chariot’.

On the other hand, the at first sight intriguing use of an ordinal to name a divinity is not unheard of in the Indo-European mythology: In a Vedic myth (RV X,8,8), a dragon is slain by a god called *Trita-* or *Trita-Āptya-* ‘third son-of-water?’ (notice the synchronic ordinal is *trītya-*), corresponding to the

<sup>51</sup> *Setantunos* in the tessera of Sasamón (Burgos) is located in the northern area known to have belonged to the Celtic population of the Turmogi, where there is no trace of the change *-eçt-* > *-ei̯t-*: cf. DVREITA TARVODVRESKA and, in K.23.2, *taruotureska tureita* meaning ‘Tarvodurean decree’ (Arevaci), as opposed to DVRETA SALDANICA ‘Saldanian decree’ (Vaccaeii). See the details in Prósper (2012, 72 ff.). Since our evidence is paltry, we cannot rule out the possibility that this change had progressively set in in Aragón, too. For this to be true, we only have to start from Hispano-Celt. *-eçt-*, a phonetic sequence universally prone to become *-ei̯çt-* in different regions and at different times.

Avestan hero *Θrita* and *Θraētaona*, and closely connected to the deeds and personality of Indra. ‘Third’ as a mythical name has been compared with Zeus as τρίτος σωτήρ ‘third Saviour’, Athena Τριτογένεια ‘third-born’ or ‘born of Tritos’ and the Old Norse divine name *Priði* ‘Third’ (*Grímnismál* 46,4; *Snorra Edda, Gylfaginning*, c. 2 ff.); cf. West (2007, 260 and fn. 71). The Indo-Iranian name has been occasionally held to be an abbreviation of ‘third born’ or something similar. Accordingly, SEITVNDŌ might be a ‘seventh born’ divinity or one of seven divinities performing as many different functions. Additionally, this may be a tabooistic way of naming a divinity in order not to attract his evil or negative properties. In many folkloric tales of popular culture, the seventh son is endowed with divine, especially healing, powers.

The ordinal ‘seventh’ is designated by a tabooistic SVANMANV ‘good-named’ in a recently published Gaulish inscription from Rezé (Loire-Atlantique), with preservation of the cluster *-nm-*, which aligns this text with the Châteaubleau tile (cf. Lambert / Stifter 2012, 150).

## 5. Conclusions on ‘fourth’ and ‘fifth’

Both Italic and Celtic have inherited an ordinal PIE *\*k<sup>u</sup>etyr-tó-* ‘fourth’ which has evolved according to different phonotactic strategies: it yielded (1) *\*k<sup>u</sup>etruto-* in Celtic, where it is only discernible in a single example from a conservative Gaulish area and perhaps already with a specialized use, and (2) *\*k<sup>u</sup>eturto-* in Italic, at least in the South-Picene or Umbrian *Peturtius*, but probably also in Latin *quārtus*.

This allegedly ‘young’ ordinal is now attested in virtually every Indo-European branch. As far as I know, the ‘ancient’ form *\*k<sup>u</sup>(e)turó-* is not attested, but see above (p. 6) for the derivative *\*k<sup>u</sup>tur-ījó-*. In itself, a reconstruction *\*k<sup>u</sup>eturó-* for the base of the originally Sabellic praenomen *Petrō* is possible, but in view of the cardinal-based name *Pompō* it is more likely to be a late individualizing or possessive derivative of the prevocalic stem *\*k<sup>u</sup>etur-* of the synchronic accusative and genitive cases of the cardinal (*\*k<sup>u</sup>etur-ns*, *\*k<sup>u</sup>etur-om*): *\*k<sup>u</sup>etur-* → nominative sg. *\*k<sup>u</sup>etur-ō(n)*.

The Lusitanian name PEIDVRTA, PERVRDA is primarily compatible with an Italic, not a Celtic, ascription, unless we accept that both Celtic and Italic actually possessed an ordinal *\*k<sup>u</sup>eturto-* and that the Celtic word has undergone a primitive metathesis, as in Gaul. PAETRVTE. This possibility cannot be further substantiated, but it would give air to the upholders of any variant of the Italo-Celtic hypothesis. At all events, Italic shows an evolution similar

to that of the western Hispanic names, which is comparatively marked and thus more likely to reflect a primitive common stage than an independent innovation. Anyhow, we have an increasing number of Indo-European forms showing the marked phonotactics *\*k<sup>u</sup>eturtó-*, and one can suspect it may have been favoured by the fact that most of the affected languages have back, close or near-close vowels as a result of interconsonantic *-t-*, which may have partly favoured an evolution *-y̥- > -yur-/ -y̥or- > -ur-*. If South-Pic./Umbr. PETVRTIVS and Lat. *quārtus* go back to Proto-Italic, then either *\*k<sup>u</sup>eturto-* already existed at that stage, which is likely, or a PItal. *\*k<sup>u</sup>etuorto-* (1) yielded *\*k<sup>u</sup>et̥urto-* and then *\*k<sup>u</sup>eturto-* in some or all branches of Italic; (2) was redone in Sabellic under the influence of the prevocalic variant *\*k<sup>u</sup>etur-*.

On the other hand, both Italic and Celtic have inherited a second ordinal *\*(k<sup>u</sup>)t̥y̥r-tó-* ‘fourth’ to which no specific function or meaning can be assigned, and that seems to have undergone a very primitive simplification of the awkward consonant cluster through loss of the labiovelar and early metathesis, yielding *\*truto-*. Schindler’s rule that establishes that *\*k<sup>u</sup>t̥y̥r-* should yield *\*k<sup>u</sup>et̥y̥r-* (1977, 56 ff.) is thus refuted. It could be argued, were it not for the Oscan attestations, that *\*truto-* was a moribund form both in Italic and in Celtic, only to be recovered from personal names. Thus, we have to allow for the possibility, however slight, that this was the inherited situation and that *\*truto-* was already an archaism in Oscan or had a specialized meaning in the texts where it occurs, and that the unattested synchronic ordinal continued the by-form *\*k<sup>u</sup>eturto-*.<sup>52</sup> An assessment of the situation in Umbrian crucially depends on admitting *trutitis* as an Italic form.

In Gaulish and the whole of Insular Celtic, *\*truto-* has been ousted by different innovative forms, but is still attested in the Gaulish names TRVTMO, TRVT(A)E and VATRV(T)A)E, if it is an innovation from *\*(d)yo-truto-* ‘twice fourth’ = ‘eighth’. Gaulish and Brittonic *\*k<sup>u</sup>etuarijo-* can be explained as an innovative, dialectal form based on the nominative pl. *\*k<sup>u</sup>et̥y̥r-es* with unrounding of *-o-* or from *\*k<sup>u</sup>et̥y̥r-*, enlarged by a suffix extracted from *\*trit̥ijo-* ‘third’. The Italic and Celtic state of affairs is thus comparable to that of Greek, where the ordinal goes back to *\*k<sup>u</sup>et̥y̥r-tó-* with loss of *-u-*, and *\*k<sup>u</sup>t̥y̥r-tó-* is preserved in personal names as *\*Turto-* with loss of the labiove-

<sup>52</sup> This can happen in some contexts even if the ordinal is understandable: cf. Sp. *nono* as an archaism for *noveno*, Fr. *cinquième* but *Charles Quint*. Since TRVTVM is the determinans of ZICOLOM ‘day’ this could be one of these frozen uses, at home in a public document.

lar and alternative phonotactics going back to Proto-Greek, and it is interesting to note that in the three cases the protoforms *\*k<sup>u</sup>et<sub>u</sub>r-tó-* and *\*k<sup>u</sup>t<sub>u</sub>r-tó-* evolve in different directions, and only the first one lives on as a part of the numeral system.

The numeral ‘fifth’ forms the base of a number of names in Celtic and possibly also non-Celtic dialects of western Hispania (PINTAMVS, PENTOVIVS, PINTIVS). I have argued that the names COMPEDIA, COMPEDIONI may be derivatives of the cardinal series and identical to the rare gentilic *Pompedius*, from PItal. *\*k<sup>u</sup>enk<sup>u</sup>edjo-*.

## 6. Some final but manifold reflections: The Indo-European collective numerals with a suffix *-ro-* in Italic and Celtic

A number of Indo-European languages bear testimony of the existence of substantival numeral forms of collective meaning derived from the cardinal numbers by means of a suffix *-ro-*. They are archaic formations and their range is restricted to the numbers ‘two’ to ‘five’. Their meaning was originally possessive, roughly translatable as ‘tripartite’, ‘quadripartite’, etc., and they are progressively replaced by *dvigú* compounds or accorded a specialized meaning as substantives. This work intends to uncover some of these numeral forms as preserved in Italic and Celtic onomastic items mostly found in Latin funerary and votive inscriptions.

That the point of departure must be the numeral ‘four’, from which *-ro-* was metanalyzed early, is likely not only in view of its phonetic structure, but also because this innovation has never prospered beyond the cardinal ‘five’ except in Slavic, where it has been extended to the rest of the decade. The details are nevertheless far from certain, as we will see below. Armenian has spread the collective suffix *-ro-* beyond its likely original limits both forward and backward, to judge from Meillet’s reconstructions *\*dui-ro-*, *\*tri-ro-*, *\*penk<sup>u</sup>e-ro-* (1929). We have indirect evidence that this process may have reached back at least as far as ‘three’ in Celtic, where we have already two testimonies which coincide in showing a likely dissimilation of vibrants, by which *\*tri-ro-* > *\*tri-lo-*: the family name *Tirilokum* (K.1.3, Botorríta) and the Gaulish locative singular TRILE in a sequence of ordinals in the recently uncovered inscription of Rezé (Loire Atlantique; Lambert / Stifter 2012). In turn, this secondary *\*tri-ro-* replaces the inherited form *\*trejo-* (in OI *traya-*, OCS *trojĭ*, Lith. *treji*). The only onomastic instance of this name in Gaulish is TRILICI in CIL XIII 870 (Bordeaux, Aquitania).

## 6.1. Collective numerals and the Venetic form for ‘five’

The Indo-European collective numeral roughly meaning ‘unit comprising five parts’ has the structure *\*penk<sup>u</sup>e-ro-* and is found in Arm. *hinger-ord*, ‘fifth’, PGmc. *\*fengra-* ‘finger’, originally ‘one out of a structure of five parts’, and Lith. *penkerì* ‘set of five’, to which must be added the secondary Slavic form *\*pętero* in Russ. *pjatero* (instead of expected <sup>†</sup>*pjačero*), which is due to the contamination with the secondary ordinal *\*pęťĩ*. The Old Irish neuter *cóicer* ‘five men’, often identified with the former numerals, is probably a compound with second element *\*-uīro-* ‘man’ and in that case it does not belong to this group,<sup>53</sup> although it is frequently quoted as if it were.<sup>54</sup>

PIE *\*penk<sup>u</sup>e-ro-* has been replaced in some languages by a synonymous noun PIE *\*penk<sup>u</sup>-ti-* ‘set of five items’, attested in OI *pañkti-*, in Slavic *\*pęťĩ* ‘five’, Oícel. *fimt* < PGmc. *\*fenftiz* ‘number of five’ and in Osc. *pomtis*, Umbr. *puntes*.<sup>55</sup> There is a possible example of the same replacement in Continental Celtic, in the Celtiberian compounded personal name *Kuintitaku* (K.1.3, Botorrita),<sup>56</sup> if it is interpreted as *\*k<sup>u</sup>enxti-tāgo-* ‘leader of a group of five, *quīncuriō*’, as may be the case with the feminine name PEDITAG(A)E (dat. sg., Belorado, Burgos, Autrigones; Reyes Hernando 2000, 24).<sup>57</sup> The Italic continuant of a collective numeral *\*penk<sup>u</sup>e-ro-* is probably attested in Osc. *púmpérias* and *púmpériaís* (Capua), respectively the nominative pl. and dative-ablative pl. of an *ā*-stem *\*k<sup>u</sup>enk<sup>u</sup>er-īā*. These forms constitute a part of the designation of dates, probably meaning ‘the fifth day’ or a sequence of five days. PItal. *\*k<sup>u</sup>enk<sup>u</sup>er-īā* is also attested in Umbr. *pumpeřias* (nom. pl.), where ⟨ř⟩ is taken to be a misspelling for ⟨r⟩ due to the influence of the preceding word *fameřias* with which it agrees. In Iguvium, meaning and context

<sup>53</sup> Cf. Thurneysen 1946, 243; Greene 1992, 518 about the phonetic difficulties.

<sup>54</sup> Cf. Szemerényi 1960, 97, who wonders if this kind of compounds existed in Proto-Indo-European, which is no reasonable objection since in fact they are probably of Insular Celtic age (unless one accepts the possibility that Lat. *decuria*, *centuria* are actually compounds of *\*uīro-* meaning ‘group of ten, one hundred men’). Note that in the second case, if we posited an ancient, primitive Latin structure *\*kento-uīro-* from *\*dk̑nto-* + *uīHro-* we would get *centūria*.

<sup>55</sup> Cf. Weiss 2010, 78 ff.

<sup>56</sup> Cf. Beltrán et al. 1996, 144 where Untermann ventures a relationship with Lat. *quīntus*.

<sup>57</sup> Voicing of original *-nt-* is well attested in Celtiberian. It may take place even if intervocalic voiceless stops are preserved, as is unexceptionally the case in this area. In my present view, the Cantabrian name PENDIEGINO does not belong here.

are largely unclear. According to Ancillotti / Cerri (1996, 402), it designates the month name *quīnctilis*.

If a PItal. *\*k<sup>u</sup>enk<sup>u</sup>erjo-* has preserved its medial vowel in Sabellic unchanged, this is probably due to a primary *jo*-derivation blocking syncope in a closed syllable<sup>58</sup>; cf. in this regard the preservation of etymological *-e-* in Umbr. *fameña*, *ampeña*. Summarizing, *\*k<sup>u</sup>enk<sup>u</sup>erjo-* is now attested in no fewer than two branches of Italic, and it has a direct cognate in Lith. *peñke-rias* ‘fivefold’ which is suggestive of an even older formation.

Coleman (1992, 425; accepted by de Vaan 2008, s.v. *quīnque*) states that the above studied Osc. *pūmperias* is built in analogy to an unattested *\*peterias*, in turn coming from *\*petrias*; finally, this form would be the syncopated product of an ordinal *\*peturias* ‘fourth’, which has a number of drawbacks. To begin with, it does not account for the Umbrian form. The ordinal *\*peturo-* is hitherto nothing but a reconstruction (in fact it is the product of a chain of deductions, since it is nowhere attested as such). *Muta cum liquida* clusters like *-tr-* are often preserved in Oscan, although this is often due to the initial syllable being heavy. The Latin name *Petrō*, which is to be immediately compared with *Pompō* and in all likelihood cardinal-based (from the prevocalic form *\*k<sup>u</sup>etur-*) is not diagnostic. Osc. *\*petriiās* with anaptyxis would have resulted in *\*petir(i)iās*.<sup>59</sup>

I believe a derivative *\*k<sup>u</sup>enk<sup>u</sup>erjo-* is also attested in a hitherto neglected epitaph, scil.:

L(VCIVS) COELIVS M(ARCI) F(ILIVS) / CONCERTIO / ANN(ORVM) LXXXX (Adria, Venetia et Histria; CIL V 2331).

If this identification is right, there can be little doubt that the Venetic word for ‘five’, attested in Lat. *quīnque* and derivatives of Sabellic *\*pompe*, and

<sup>58</sup> That is to say *-erjo-*; cf. Benediktsson 1960, 205, Eichner 1982, 526. Szemerényi (1960, 97 ff.) reconstructs *\*-erjo-*, which compels him to accept irregular preservation of *-e-* in the Sabellic forms.

<sup>59</sup> Nor is PItal. *\*k<sup>u</sup>etur-* responsible for the creation of Lat. *decuria* and Umbr. *tekuries* (pace de Vaan 2008, s.v. *decem*), since there must have been an adjective *\*dekujo-* to account for Osc. *dekkviarim* and *tekvias* (cf. Eichner 1982, 541 ff.). Osc. *petiro-pert* ‘four times’ (Tabula Bantina) is explained as *\*k<sup>u</sup>eturijā* by Coleman (1992, 394), who essentially follows Buck (1904, 52); but a slightly different preform *\*petriijā* was actually reconstructed in this seminal work, which must have been born in analogy to inherited *\*trijā* in Umbr. *trioper* and would have given exactly the same outcome through the stages *\*petirijā* (by anaptyxis) > *\*petiriā* (by reduction) > *petiro-* (by a context-bound absorption of *-i-* following a vibrant that is peculiar to this particular document).

which has not been preserved in its basic form, was †*conce*. The proposed evolution is:

- \**penk<sup>ue</sup>* > \**k<sup>ue</sup>enk<sup>ue</sup>* (by assimilation of labiovelars, which supports the idea that Venetic is an Italic language)
- > \**k<sup>ue</sup>onk<sup>ue</sup>* (by rounding between two consecutive labiovelars, as in Sabellic)
- > \**k<sup>ue</sup>onke* (by dissimilation of labiovelars, as in VLat. *cinque*, etc.)
- > \**konke* (by dissimilatory loss of the labial appendix preceding a back vowel, as in Lat. \**k<sup>ue</sup>om* > *cum* and \**k<sup>ue</sup>elō* > \**k<sup>ue</sup>olō* > *colō*).<sup>60</sup>

Thus far, the only clue about the regressive assimilation of labiovelars in Venetic was furnished by the ordinal in the inscription reading KVITO (Es 99), very sensibly suspected of being a loanword on account of its similarity to Lat. *quīntus*.<sup>61</sup> On the testimony of the Venetic and Sabellic forms we may conclude there was a substantive or substantivized adjective \**k<sup>ue</sup>enk<sup>ue</sup>er-jo*—possibly meaning ‘a (ritual?) sequence of five days’, which reaches back to Proto-Italic and would have survived in Latin as †*quīnqueria*. Therefore, Untermann’s assertion (WOU, 603) that

Die Fünffzahl bei Datumsangaben (ebenso auch, falls dies gemeint ist, bei der Gliederung der Bürgerschaft) spielt in Rom keine Rolle; es handelt sich um Institutionen, die charakteristisch für Umbrien und Kampanien sind.

may have to be somewhat reviewed or amplified. CONCERTIO probably stands in the same relationship to Osc. *púmpérias* and Umbr. *pumpeřias* as Lat. †*quīncuriō* ‘commander of a group of five men’ to †*quīncuria* (forms that might have existed to judge from *decuria* and *centuria*, *decuriō* and *centuriō*). In that case, the nasal suffix is possessive in nature, and if \**k<sup>ue</sup>enk<sup>ue</sup>er-jo* was originally an adjective, it had already been substantivized as a feminine \**k<sup>ue</sup>enk<sup>ue</sup>er-ĵā* (probably because by the time this form was fixed it mostly occurred in agreement with a feminine noun), when it was further enlarged as an exocentric *n*-stem.

Of course we remain in the dark as to the military significance of a Venetic ‘quincurio’. In this inscription, this word is unequivocally used as a cognomen, and accordingly we may surmise that an ancient local title, probably used already as an indigenous name, has been incorporated into the Roman naming system without further ado, as is the case all over the empire.

<sup>60</sup> Venetic *ekvon*, even accepting there is no difference between the results of PIE /k<sup>ue</sup>/ and /k<sup>u</sup>/ ~ /k<sup>u</sup>/, does not falsify the rule. Note that we would regularly expect Lat. †*ecus* and not *equus*, where the labiovelar was reintroduced after the genitive *equī*. This can never be the case with labiovelars in initial position.

<sup>61</sup> Cf. Lejeune 1974, 142; Marinetti 1995, 178 ff.



An intriguing parallel, however, is found in an inscription from Trieste (Venetia et Histria; CIL V 553) reading M(ANIVS) CASSIDIVS / M(ARCI) F DECVRIO / FIERI IVSSIT // ATTIA / SECVNDA / VXOR. Here DECVRIO is found as a cognomen, and there is no mention either of a military unit or, if *decuriō* refers to a member of the municipality, of the city in question. Finally, *centuriō* seems to be used as a cognomen in M(ARCVS) CAR(-) VASSEDO ET / N(VMERIVS) VAL(ERIVS) CENTVRIO L(VGV DVNI) F(ECERVNT) (Lyon).

## 6.2. An Italic and Celtic collective numeral *\*k<sup>u</sup>et<sup>u</sup>ero-* ‘fourfold’

In his study of the onomastics of the third Botorrita bronze tablet, Untermann (Beltrán et al. 1996, 132) has compared the Celtiberian personal name PETRAIOCI (Lara de los Infantes, Burgos, Pelendones) to the family name *Be-teriskum* (gen. pl., Botorrita; K.1.3), which he traces back to a personal name *Petrisus*. This is unlikely because we would expect †*Betiriskum*, with the medial syllable copying the full vowel of the next syllable, and also for derivational reasons, since the sibilant is clearly part of the suffix, not of the underlying name, as in BOLGONDISCVM, *Taurisci*, etc.

I propose that the base be read as *\*peter-* and traced back to a collective numeral *\*k<sup>u</sup>et<sup>u</sup>ero-* which would be identical to OI *catvara-* ‘square’, OCS, Russ. *četvero*, Lith. *ketveri* (see Beekes 1987). Gk. τέσσαρες, -α has a dialectal variant τέσσερες, -α, whose vocalism is perhaps the indirect reflex of an unattested collective form. Loss of medial -*u-* may be due to dissimilation. The reason why the attested form is not †*Kueteriskum* with the usual Celtiberian preservation of the voiced labiovelar may be that this is a family name from the periphery of Celtiberia, where there are indications that the change /*k<sup>u</sup>/ > /p/* is earlier.<sup>62</sup>

Interestingly, this possibility may find support in a similar but phonetically unambiguous sequence transmitted by a classical author who is comparatively reliable since he was of indigenous ancestry and personally acquainted

<sup>62</sup> On the other hand, the fact that this phoneme surfaces invariably as P in the Celtiberian personal names attested later in the Latin alphabet arouses the suspicion that [p] may have soon become an allophonic variant of /*k<sup>u</sup>/*, perhaps even before the Iberian script was adapted for the Celtiberian usage. In this case, any word beginning by *p-* of whatever origin which was unknown or simply unfamiliar to the ear may conversely have been rendered by means of <ku-> if this was the graphic norm in contexts where [p] was the actual variant of /*k<sup>u</sup>/*, but by the only available labial symbol <b-> if this was not yet the case, for instance when the labiovelar was followed by palatal vowels and the perceived strings [pe], [pi] bore no acoustic resemblance to synchronic [k<sup>u</sup>e], [k<sup>u</sup>i].

with the places he mentioned. In one of his verses, dwelling on the delights of his Celtiberian homeland, the Roman poet Martialis (epigr. IV,18) mentions a city *textis Peterin rosis rubentem* whose name may be related to the collective numeral ‘fourfold’.

If the transmission is intentionally faithful to the original, the ending must somehow be reflective of the Celtiberian neutralization of final *m* and *n* in that particular area, and may go back to a feminine place name *\*k<sup>u</sup>et<sup>u</sup>er-ī*. In any event, *Peterin* is the reading of the manuscript family  $\gamma$  as opposed to the ‘lectio facilior’ *Peterem* in family  $\beta$ .<sup>63</sup> This is a suitable name for a town, whether it means ‘square’ or ‘placed on a crossroad’. *Beteriskum* contains a suffix *-isko-* which is the product of metanalysis, or alternatively is one of the nuclear forms which gave rise to this new suffix, and then its actual base is a derivative *\*peter-jo-* or *\*peter-i-*. In the latter case we would have the exact cognate of Lith. *ketverì*.

On the other hand, neither *\*k<sup>u</sup>et<sup>u</sup>ero-* nor *\*k<sup>u</sup>et<sup>u</sup>er-jo-* have left any traces in Italic. Yet, a votive inscription from Pannonia Inferior reads:

SOLI / INVIC/TO DEO / M(ARCVS) VLP(IVS) / PETVE/RNVS (Intercisa, today Dunaújváros, Hungary; CIL III 10310).

In my view there is hardly any doubt as to the existence of a name *\*k<sup>u</sup>et<sup>u</sup>er-no-*, whether it is Celtic or ‘Pannonian’, if such a dialect has ever existed, and then perhaps genetically close to Italic.<sup>64</sup> Interestingly, it might be also reflected in the distributive *quaternī*, whose vocalism would be analogical. Beekes (1995, 242), includes this form among the collectives without further explanations, implying it is a derivative of *\*k<sup>u</sup>et<sup>u</sup>ero-*, and includes *bīnī*, *ternī*, *trīnī* among the forms derived from the corresponding collective numerals, too. The two only thinkable Sabellic reflects of a *\*k<sup>u</sup>et<sup>u</sup>er-no-* are PETERNI (Aquinum, Latium et Campania) and Q(VINTVS) PETERNIVS (Heba, Etruria).<sup>65</sup>

<sup>63</sup> The personal name PETERVSA in Parentium (Venetia et Histria) cannot be used with any confidence: the density of Greek female names in *-usa* in the Latin epigraphy of this region, such as PLECVSA or FENGVSA, recommend to trace this name back to the possessive adjective *πτεροῦσα* from *\*ptero<sup>u</sup>ent-īā* ‘winged’ with secondary anaptyxis.

<sup>64</sup> C(AIVS) PETVELLIVS is attested in CIL IX 1927 (Beneventum, Apulia et Calabria) and may consequently be Oscan. But an inscription from Etruria has BETVELLIVS, -A (CIL XI 7544). PETVELLIVS may stand for the usual PETELLIVS.

<sup>65</sup> Rather than independent mistakes for *Paternus* and *Paternius* (a gentilic never found in Italy, and attested only in Celtic territories, like Germania and Britannia). A name PEDERNI(VS) (Etruria, Umbria), if it has undergone secondary voicing, militates against this possibility.

There are two basic theories of the origin of Indo-European collectives: Beekes (1987), partly on the authority of Meillet (1929), reconstructs a neuter collective of singular inflection *\*k<sup>u</sup>et-*uōr** ‘four’, whose accusative was *\*k<sup>u</sup>t<sup>u</sup>er-*η**. The collectives would be built on the accusative stem. According to Burrow (1973, 141. 259), the masculine form of the cardinal had a neuter pendant (his example is Skt. *\*catvar* “or its Indo-European prototype”) with a thematic extension. More promising is Szemerényi’s idea (1960, 97 ff.) which starts from thematized /e/ grade forms of the numerals to explain the collectives (*\*d<sup>u</sup>e<sup>i</sup>o-*, *\*tre<sup>i</sup>o-*, *\*k<sup>u</sup>et<sup>u</sup>ero-*), whereas ordinals are based on the equally thematized zero grade (*\*d<sup>u</sup>i<sup>o</sup>-*, *\*tri<sup>o</sup>-*, *\*k<sup>u</sup>et<sup>u</sup>ro-*). Since the collective numeral for ‘five’ must have been *\*penk<sup>u</sup>o-*, *\*penk<sup>u</sup>ero-* was remodelled on *\*k<sup>u</sup>et<sup>u</sup>ero-*. On the other hand, one may agree with Eichner (1982, 527), that in Proto-Indo-European or late Indo-European a substantival *\*penk<sup>u</sup>erom* came into being, under whose influence *\*k<sup>u</sup>(e)turom* became *\*k<sup>u</sup>et<sup>u</sup>erom*. In turn this *\*penk<sup>u</sup>erom* rests on a ‘complexive’ *\*k<sup>u</sup>tur-óm*.

As regards *Peternius* and *quaternī*, both might go back to *\*k<sup>u</sup>etrV-no-*, which is not altogether satisfactory because it lacks convincing parallels. An alternative preform would be *\*k<sup>u</sup>et<sup>u</sup>ur-no-*, which would have given *\*k<sup>u</sup>etur-no-* very early, however. But, as we are going to see, the Latin distributive adjectives are usually said to be derived from sigmatic multiplicative adverbs. Current hypotheses regarding these deceitfully transparent adverbs and adjectives often rely on very distant cognates and make abundant use of analogy for the forms that fail to fit into the picture. This is characteristically aggravated when no attempt is made to account for all the related forms. My hypothesis regarding this particular form will not be based on a new disposition of the old pieces, but on fresh evidence from the side of onomastics. Yet, although I do not believe that the close similarity of the Latin numerals and the Italic onomastic items brought to bear on this matter can be purely coincidental, I acknowledge that the former have been considered as secondary, analogical forms so often and on so different grounds that the question cannot be settled as far as they are concerned.

De Vaan (2008, s. v. *trēs*) traces *trīnī* back to *\*trisno-* (a recent formation) and *ternī* to *\*tri-no-* (as expected from Proto-Indo-European). Meiser (2002, 176 ff.) reconstructs *\*tri-g<sup>h</sup>-s-nī* for *trīnī* and *\*ters-no-* for *ternī*, which he confusingly ascribes to *ter* (probably meaning the primitive structure was *\*tris-no-*). *Quater* is analogical on *ter* for expected *\*quatur* (from *\*k<sup>u</sup>aturs* like OI *catur*), and *quaternī* is then secondarily built to *quater* on *ternī*. Coleman (1992, 420) is noncommittal as to whether *ternī* or *trīnī* go back to *\*tris-no-*. He believes *quaternī* to be analogically remodelled under the influence

of *quater* from *\*k<sup>u</sup>turs*, since the expected result would be †*quaternī*. Alternatively, it would be a recent formation. That in his view *\*k<sup>u</sup>turs* should yield *quater*, either directly or via metathesis and samprasarana, by which *\*k<sup>u</sup>aturs* > *\*k<sup>u</sup>atrus* > *\*k<sup>u</sup>atys* > *quater*, is not clear to me, however; alternatively he assumes it may come from *\*k<sup>u</sup>etrus-no-* and ultimately from *\*k<sup>u</sup>eturs-no-* (where metathesis is equally unwarranted). Eichner (1982, 516) reconstructs *\*k<sup>u</sup><sub>e</sub>trus-no-* but leaves a possible analogy to *\*tris-no-* open. These theories have consequently nothing in common as to the analogical or primitive nature of *quater* and especially the late appearance of *quaternī*.

However, the fact that only the lower numerals irrefutably show sigmatic multiplicatives and the poor attestation of this class for number ‘four’ (only Av. *čaθrus* and OI *catúh* are likely cognates) lead to suspect that the spread of *-s* beyond ‘twice’ and ‘thrice’ is not early, and that it originally affected monosyllabic forms only. The expected interconsonantal result of *-ur-* in Italic is *-ur-*, at least in the forms of the numeral ‘four’. On the other hand, I assume the metathesis in the compound variant *\*k<sup>u</sup>etru-* from the basic *\*k<sup>u</sup>eturs* to be of Indo-European date. Consequently, many possibilities are open for *quater*: it may be an ancient form *\*k<sup>u</sup>etru-s* matching its Indo-Iranian equivalents; or it may have been modelled in Italic after *\*d<sup>u</sup>is* and *\*tris*; or, as Coleman (see above) suggests as an alternative, it may have risen at a late stage in analogy to *ter*, which would be in agreement with the lack of evidence for a sigmatic form in the rest of Italic.

It must be noted that the whole question tacitly hinges on the relative chronology of samprasarana and loss of a sibilant before a nasal sound. If *\*tris-no-* yielded *\*trīno-*, we would expect analogical †*quatrīnī* (actually attested as *quadrīnī*). By contrast, an original *\*k<sup>u</sup>etrus-no-* would yield †*quatrīnī*. The only support of this chronology is Lat. *crīnis* from *\*kris-ni-*, but as far as I know there is no extant evidence to the contrary. Additionally, *trīnī* is attested very early.<sup>66</sup>

A recent, analogical form *quaternī* would defy the synchronic norm, by which all the distributive numerals are furnished with the suffix *-no-* preceded by a long vowel: *bīnī*, *trīnī*, *quadrīnī*, *quīnī*, *sēnī*, *decēnī*, *uicēnī*, etc., often explained on the grounds that a new suffix *-sno-* was metanalyzed and spread from the lower to the higher numerals (Meiser 2002, 177). Accordingly, it seems likely that it is either a regular phonetic result of *\*k<sup>u</sup>etrus-no-*

<sup>66</sup> Although it could be argued that *trīnī* goes back to the collective forms and consequently presupposes *\*trej-no-*, it occurs in the *Senatus Consultum de Bacchanalibus*, where the diphthong /eɪ/ is still rendered EI.

(which as we have seen is itself doubtful) or of another preform *\*k<sup>u</sup>aterno-*, as we will see; if so, the synonymous form *quadrīnī* is secondarily built to suit the norm.

On the evidence of personal names, I assume the expected result of PItal. *\*k<sup>u</sup>et<sup>u</sup>er-no-* is Latin *quaternī*, since the root vocalism /a/ from the oblique cases of the cardinal has been generalized to all the extant forms with original /e/, such as *quattuor* from *\*k<sup>u</sup>et<sup>u</sup>ōr* and *quārtus* from *\*k<sup>u</sup>eturto-*, as opposed to Sabellic, where the opposite levelling /a/ > /e/ has taken place. PItal. *\*k<sup>u</sup>et<sup>u</sup>er-no-* accounts for no fewer than three attested forms: Lat. *quaternī*, the Sabellic name *Peternus*, and the Pannonian PETVERNVS if it belongs to a peripheral (para-)Italic dialect (note this is crucially the only form where both samprasarana and analogy are out of the question.)

PItal. *\*k<sup>u</sup>et<sup>u</sup>er-no-* may have risen very early as the product of crossing of the collective *\*k<sup>u</sup>et<sup>u</sup>ero-* with deadverbial distributives in *-no-*. By contrast, there is no single trace of *\*k<sup>u</sup>et<sup>u</sup>er-i(i)o-*, a collective derivative that in Sze­merényi’s view (1960, 98 ff.) must inevitably have existed to account for *\*penk<sup>u</sup>er-i(i)o-*, or of *\*k<sup>u</sup>etur-i(i)o-*, an ordinal equally explaining *\*penk<sup>u</sup>er-i(i)o-* according to Coleman (1992, 425; as to the hapax PETVREI[VS] see above, p. 3). I remain non-committal as regards *quater*, but both the meager evidence for PIE *\*k<sup>u</sup>etrus* and the independent existence of *\*tris* > *ter* and *\*k<sup>u</sup>et<sup>u</sup>er-no-* > *quaternī* incline me to believe it is a secondary form, modelled under the combined influence of *ter* and *quaternī*. *Ternī* and *quadrīnī* were subsequently created by a simple proportion to make the subsystem square, except that *trīnī* was never completely ousted and survived side by side to *ternī*.

Such Celtic forms as *Peterin* and *Beteriskum* point to an unenlarged form *\*k<sup>u</sup>etero-*. Given the archaic, peripheral form PETVERNVS, it is hard to say whether the dissimilatory process *\*k<sup>u</sup>et<sup>u</sup>e-* > *\*k<sup>u</sup>ete-* is old in Italic, but it may obey a regular rule of simplification of *-tu-* for all we know (cf. *-du-* > *-d-* in Umbr. *pur-ditom* ‘porrectum’, etc.). The validity of this possibility can only be checked against other instances of dissimilation in this particular root. As a matter of fact, most of the extant examples have gotten rid of the consecutive labials some way or other. The clearest exceptions are the ordinals Gaul. PETVARIOS and OW *petguared*. Since this is a Gaulish and Brittonic innovation rather than the original ordinal, it may have been formed on the cardinal after the change *\*k<sup>u</sup>-* > *\*p-*, and consequently causing no dissimilation.

Under this assumption, only the cardinals resist explanation: OIr. *cethair* and OW *petguar* are directly derived from *\*k<sup>u</sup>et<sup>u</sup>ores*, albeit the Goidelic

form is compatible with original *\*k<sup>u</sup>etores*, a form also found in Armenian *ճ'or-k'*, in North-West and Dorian Greek *τέτορες*, and in the Greek ordinal *τέταρτος*. On a very simple account, these forms would have preserved their second *-u-* because they were accented on the root, which caused resyllabification followed by fortition in Lat. *quattuor*.

What follows is a tentative scheme of the diachronic evolution of the forms for 'threefold', 'fourfold' and 'fivefold' in Italic and Celtic (the symbol >> stands for 'irregular phonetic result probably due to analogical remodelling'; → stands for 'derivational relationship, occasionally including phonetic reshaping'):

Italic:

*\*trejo-* → *\*tris-no-l<sup>??</sup>\*trej-no-* (> Lat. *trīnī*)

*\*k<sup>u</sup>etjero-* → *\*k<sup>u</sup>etjer-no-* (Pannonian PETVERNVS) > *\*k<sup>u</sup>eterno-* (Osc. PETERNVS)  
>> *\*k<sup>u</sup>aterno-* (Lat. *quaternī*)

*\*penk<sup>u</sup>ero-* > *\*k<sup>u</sup>enk<sup>u</sup>ero-* > *\*k<sup>u</sup>onk<sup>u</sup>ero-* → *\*k<sup>u</sup>onk<sup>u</sup>er-jo-* (Osc. *púmpérias*, Umbr. *pumpeřias*) → *\*k<sup>u</sup>onk<sup>u</sup>erj-ō(n)* (Ven. CONCERIO)

Celtic

*\*trejo-* >> *\*tri-ro-* > *\*tri-lo-* (Gaul. TRILE, TRILICI, Celtib. *Tirilokum*)

*\*k<sup>u</sup>etjero-* > (<sup>?</sup>Hispano-)Celtic *\*k<sup>u</sup>etero-* (Celtib. *Peterin*, *Beteriskum*)

#### Appendix: General scheme PIE 'fourth' and 'fifth' in Celtic and Italic

PIE	CELTIC			ITALIC	
	Common Celtic	Gaulish	Hispano-Celtic	Proto-Italic	Lusitanian Callaecian
<i>*k<sup>u</sup>turtó-</i>	<i>*truto-</i>	<i>Trutmo</i> <i>Trut(a)e</i> <i>Va-trut(a)e</i>	<i>Turtuna{z}</i> <i>Turtunta</i> <sup>?</sup> <i>Trutobriga</i> <i>Truti[-</i>	<i>*truto-</i>	<i>O. trutum</i> <i>O. trutas</i> <i>Trutteius</i> <i>Trutedius</i>
<i>*k<sup>u</sup>eturtó-</i>	<i>*k<sup>u</sup>etruto-</i>	<i>paetrute</i>		<i>*k<sup>u</sup>eturto-</i>	<i>L. quārtus</i> <i>Peidurta</i> <i>Quōrta</i> <i>Peidurtia</i> <i>Peturtius</i> <i>Perurda</i>
<i>*k<sup>u</sup>et(u)r-</i> + <i>-edjō-</i>					<i>V. Petridius</i>
<i>*penk<sup>u</sup>tó-</i>	<i>*k<sup>u</sup>enk<sup>u</sup>to-</i> > <i>k<sup>u</sup>χto-</i>	<i>pixte</i> <i>Pixtillus</i> <i>Pixtigenus</i> <i>Pixtacus</i>		<i>*k<sup>u</sup>enk<sup>u</sup>to-</i> > <i>k<sup>u</sup>χto-</i> >> <i>k<sup>u</sup>into-</i>	<i>F. Cuicto</i> <i>L. quīn(c)tus</i> <sup>?</sup> <i>V. Kvito</i>
				<i>*k<sup>u</sup>enk<sup>u</sup>to-</i> > <i>k<sup>u</sup>onk<sup>u</sup>to-</i>	<i>O. pomtis</i> <i>O. Púntiis</i> <i>Pontedius</i> <i>Pomptinus</i>

PIE	CELTIC			ITALIC	
	Common Celtic	Gaulish	Hispano-Celtic	Proto-Italic	Lusitanian Callaecian
*penk <sup>u</sup> tó-	*k <sup>u</sup> enk <sup>u</sup> to- >k <sup>u</sup> nto-		<i>Pentius</i> <i>Pentovius</i> <i>Pintovius</i> <sup>?</sup> <i>Pintamus</i>		<sup>?</sup> <i>Pintamus</i>
	>>k <sup>u</sup> enk <sup>u</sup> eto-	<i>pinpetos</i>	<sup>?</sup> <i>kuekuetikui</i>		
*penk <sup>u</sup> e- + -(V)ijō-				*k <sup>u</sup> onk <sup>u</sup> - (V)ijō-	<i>Pompium</i> <i>Pumpi</i> <i>Pompeius</i>
*penk <sup>u</sup> e- + -edjō-				<sup>?</sup> U. <i>Pumpeřias</i>	<i>Compedia</i> , <i>Pompedius</i> -oni

F. = Faliscian, L. = Latin, O. = Oscan, U = Umbrian, V. = Venetic. – Personal names are capitalized.

## Bibliography

- AE [+ year + nr.] = L’Année épigraphique (Paris 1889 ff.).
- Adams 1999 = Douglas Q. Adams, *A Dictionary of Tocharian B* (= Leiden Studies in Indo-European 10; Amsterdam 1999).
- Albertos Firmat 1972 = María Lourdes Albertos Firmat, *Nuevos antropónimos hispánicos* (2ª serie). In: *Emerita* 40 (1972), 1–29.
- Allen 1965 = William S. Allen, *Vox Latina. A guide to the pronunciation of Classical Latin* (Oxford 1965).
- Allen 1987 = —, *Vox Graeca. The pronunciation of Classical Greek* (Cambridge <sup>3</sup>1987).
- Ancillotti / Cerri 1996 = Augusto Ancillotti / Romolo Cerri, *Le tavole di Gubbio e la civiltà degli Umbri. Lo scavo nelle parole del testo iguvino mostra tutta la specificità della cultura Umbra e fa emergere le tracce di una grande civiltà del passato* (Perugia 1996).
- André 1985 = Jacques André, *Noms de plantes gaulois ou prétendus gaulois dans les textes grecs et latins*. In: *ÉC* 22 (1985), 179–198.
- Aski 2001 = Janice M. Aski, *Multivariable reanalysis and phonological split*. In: *Historical linguistics 1999. Selected papers from the 14th International Conference on Historical Linguistics, Vancouver 1999*, ed. Laurel J. Brinton (= *Amsterdam Studies in the Theory and History of Linguistic Science*, Ser. IV: *Current issues in linguistic theory*, 215; Amsterdam 2001), 31–47.

- Bammesberger 1995 = Alfred Bammesberger, Latin *quattuor* and its prehistory. In: JIESt 23 (1995), 213–222.
- Beekes 1987 = Robert S. Beekes, The word for ‘four’ in Proto-Indo-European. In: JIESt 15 (1987), 215–219.
- Beekes 1995 = —, Comparative Indo-European linguistics: An introduction (Amsterdam 1995).
- Beltrán et al. 1996 = Francisco Beltrán et al., El tercer Bronce de Botorrita (Contrebia Belaisca) (= Colección arqueología 19; Zaragoza 1996).
- Blažek 2000 = Václav Blažek, Indo-European ‘five’. In: IF 105 (2000), 101–119.
- Benediktsson 1960 = Hreinn Benediktsson, The vowel syncope in Oscan-Umbrian. In: NTS 19 (1960), 157–295.
- Buck 1904 = Carl D. Buck, A Grammar of Oscan and Umbrian. With a collection of inscriptions and a glossary (Boston 1904).
- Burrow 1973 = Thomas Burrow, The Sanskrit language (London <sup>3</sup>1973).
- CIL I–XVII [+ nr.] = Corpus inscriptionum Latinarum (Berlin 1862 ff.).
- Coleman 1992 = Robert Coleman, Italic. In: Gvozdanović 1992, 389–446.
- Colling / Muller 2011 = David Colling / Jean Claude Muller, Insus, fils de Vodullus, soldat trévire en Bretagne. In: Bulletin trimestrielle de l’Institut Archéologique du Luxembourg (2011), 177–180.
- CPILC [+ nr.] = Ricardo Hurtado de San Antonio, Corpus provincial de inscripciones latinas. Cáceres (Cáceres 1977).
- Cuadrado Prieto / Vallejo Girvés 1997 = Miguel Ángel Cuadrado Prieto / Margarita Vallejo Girvés, Hallazgo de una inscripción dual latina en el hábitat hispano-visigodo de Gualda (Guadalajara). In: Kalathos 16 (1997), 129–135.
- Delamarre 2007 = Xavier Delamarre, Noms de personnes celtiques dans l’épigraphie classique (Paris 2007).
- DLG = Xavier Delamarre, Dictionnaire de la langue gauloise (Paris <sup>2</sup>2003).
- Eichner 1982 = Heiner Eichner, Studien zu den indogermanischen Numeralia. Rekonstruktion des urindogermanischen Formensystems und Dokumentation seiner einzelsprachlichen Vertretung bei den niederen Kardinalia ‘zwei’ bis ‘fünf’ (Habil., Univ. Regensburg 1982). Online in the internet: URL [http://www.univie.ac.at/indogermanistik/download/Eichner\\_Habilitationsschrift.pdf](http://www.univie.ac.at/indogermanistik/download/Eichner_Habilitationsschrift.pdf). (accessed 2016, May 17<sup>th</sup>).
- Emmerick 1992 = Ronald Emmerick, Indo-Iranian. In: Gvozdanović 1992, 163–198.



- Eska 1999 = Joseph F. Eska, The linguistic milieu of \*Oderzo 7. In: HS 112 (1999), 122–136.
- Eska 2007 = —, Phonological answers to orthographic problems. On the treatment of non-sibilant obstruent + liquid groups in Hispano-Celtic. In: *Palaeohispanica* 7 (2007), 71–81.
- Ferreira da Silva 1983 = Armando C. Ferreira da Silva, As tesserae hospitales de Castro de Senhora de Saude ou Monte Murado (Pedroso, V.N. Gaia). Contributo para o estudo das instituições e povoamento da Hispania Antigua. In: *Gaia* 1 (1983), 14–17.
- García-Ramón 1984 = José Luis García-Ramón, Lesbian πέσσυρες, not πέσσυρες. In: *Athlon. Satura Grammatica. Festschr. Francisco Rodríguez Adrados*, ed. Alberto Bernabé et al. (Madrid 1984), 179–190.
- García-Ramón 2011 = —, Secondary *yod*, palatalisation, syncope, initial stress as related features: Sabellic and Thessalian. In: *Le lingue dell’Italia antica. Iscrizioni, testi, grammatica. Gedenkschr. Helmut Rix*, ed. Giovanna Rocca (= *Rivista di glottologia* 5; Alessandria 2011), 115–135.
- Gimeno 1997 = Helena Gimeno, Historia de la investigación epigráfica en España en los ss. XVI y XVII a la luz del recuperado manuscrito del Conde de Guimerá (Zaragoza 1997).
- Gimeno / Stylow 1993 = — / Armin U. Stylow, Juan Pérez Holguín y la epigrafía trujillana. In: *Veleia* 10 (1993), 117–178.
- Gimeno / Velaza 1994 = — / Javier Velaza, Correcciones de lectura a algunas inscripciones romanas de Navarra. In: *Sylloge epigraphica Barcinonensis* 1 (1994), 189–200.
- Greene 1992 = David Greene, Celtic. In: *Gvozdanović 1992*, 497–554.
- Gvozdanović 1992 = Indo-European numerals, ed. Jadranka Gvozdanović (= *Trends in Linguistics, Studies and Monographs* 57; Berlin – New York 1992).
- Hamp 1992 = Eric P. Hamp, Albanian. In: *Gvozdanović 1992*, 835–921.
- HEp [+ year + nr.] = *Hispania Epigraphica*. 1– (Madrid 1989 ff.).
- Hirunuma 1988 = Toshio Hirunuma, Gaulish ordinals. In: *Studia Celtica Japonica* 1 (1988), 39–48.
- IEW = Julius Pokorny, *Indogermanisches etymologisches Wörterbuch*. I (Bern 1959).
- ImIt I–III = *Imagines Italicae. A Corpus of Italic Inscriptions*, ed. M[ichael] H. Crawford et al. I–III (= *Bulletin of the Institute of Classical Studies of the University of London, Suppl.* 110,1–3; London 2011).

- Kavitskaya 2002 = Daria Kavitskaya, *Compensatory lengthening: Phonetics, phonology, diachrony* (London – New York 2002).
- Kent 1927 = Ronald G. Kent, *The -tt- in quattuor*. In: *Lg.* 3 (1927), 12–14.
- Keydana 2010 = Götz Keydana, *Hohe Sonorität in der Koda: Indogermanische Lösungen für ein phonetisches Problem*. In: *HS 121* (2010), 54–64.
- La Regina 2010 = Adriano La Regina, *Iscrizione osca rinvenuta a Castel di Sangro*. In: *Frammenti del passato. Archeologia e archivistica tra Castel di Sangro e Sulmona*, ed. Ezio Mattiocco (Lanciano 2010), 45–58.
- Lambert / Stifter 2012 = Pierre-Yves Lambert / David Stifter, *Le plomb gaulois de Rezé*. In: *ÉC* 38 (2012), 139–164.
- Lejeune 1974 = Michel Lejeune, *Manuel de la langue venète* (Heidelberg 1974).
- LexLep = David Stifter et al., *Lexicon Leponticum*. Online: URL [http://www.univie.ac.at/lexlep/wiki/Main\\_Page](http://www.univie.ac.at/lexlep/wiki/Main_Page) (accessed 2016, May 16<sup>th</sup>).
- Lindsay 1913 = Sexti Pompei Festi *de verborum significatu quae supersunt cum Pauli epitome*, ed. Wallace M. Lindsay (Leipzig 1913).
- Marichal 1988 = Robert Marichal, *Les graffites de la Graufesenque (= Gallia, Suppl. 47; Paris 1988)*.
- Marinetti 1995 = Anna Marinetti, *Su alcuni aspetti dei numerali nell'Italia antica: gli apporti del venetico*. In: *AIΩN-L* 17 (1995), 171–192.
- Mayer 1959 = Anton Mayer, *Die Sprache der alten Illyrier. II: Etymologisches Wörterbuch des Illyrischen, Grammatik der illyrischen Sprache (= Schriften der Balkankommission, Linguist. Abt., 16; Wien 1959)*.
- Mayer / Rodà 1985 = Marc Mayer / Isabel Rodà, *L'epigrafia romana a Catalunya, estat de la qüestió i darreres novetats*. In: *Fonaments. Prehistòria i Món Antic als Països Catalans* 5 (1985), 161–186.
- Meillet 1929 = Antoine Meillet, *Des noms de nombre ordinaux en indo-européen*. In: *BSL* 29 (1929), 29–37.
- Meiser 1986 = Gerhard Meiser, *Lautgeschichte der umbrischen Sprache (= IBS 51; Innsbruck 1986)*.
- Meiser 2002 = —, *Historische Laut- und Formenlehre der lateinischen Sprache* (Darmstadt <sup>2</sup>2002).
- Méndez Dosuna 1995 = Julián V. Méndez Dosuna, *Contactos silábicos y procesos de geminación en griego antiguo. A propósito de las variantes dialectales ὀπποζ (át. ὄροζ) y κορρα (át. κόρη)*. In: *Die Sprache* 36 (1994 [1995]), 103–127.

- Méndez Dosuna 2007 = —, *Ex praesente lux*. In: *Die altgriechischen Dialekte. Wesen und Werden*, ed. Ivo Hajnal (= IBS 126; Innsbruck 2007), 355–384.
- MLH IV = Jürgen Untermann, *Monumenta Linguarum Hispanicarum. IV: Die tartessischen, keltiberischen und lusitanischen Inschriften* (Wiesbaden 1997).
- Motta 1993 = Filippo Motta, Gall. *δεκαντεν*, Pitt. *Δεκανται*, Ant. Irl. *-De(i)-chet*. In: *Comparative historical linguistics: Indo-European and Finno-Ugric*. Festschr. Oswald Szemerényi, ed. Bela Brogyányi / Rainer Lipp. III (Amsterdam Studies in the Theory and History of Linguistic Science, Ser. IV: Current issues in linguistic theory, 97; Amsterdam 1993), 293–303.
- Nishimura 2012 = Kanehiro Nishimura, *Vowel reduction and deletion in Sabellic: A synchronic and diachronic interface*. In: *The Sound of Indo-European. Phonetics, Phonemics and Morphophonemics*, ed. Benedicte Nielsen Whitehead et al. (Copenhagen 2012), 381–398.
- Pellegrini 1999 = Giovanni Battista Pellegrini, *A proposito di \*musu- e \*busu-*. In: *La Ricerca Folklorica* 39 (1999), 131–134.
- Pensado Ruiz 1986 = Carmen Pensado Ruiz, *El contacto de silabas como origen de las evoluciones de las secuencias de consonante + wau en romance*. In: *Revista de Filología Románica* 4 (1986), 73–110.
- Petersen 1962 = Hans Petersen, *The numeral praenomina of the Romans*. In: *Transactions of the American Philological Association* 93 (1962), 347–354.
- v. Planta 1897 = Robert von Planta, *Grammatik der oskisch-umbrischen Dialekte. II: Formenlehre, Syntax, Sammlung der Inschriften und Glossen, Anhang, Glossar* (Strassburg 1897).
- Pocetti 1995 = Paolo Pocetti, *Nomi personali, numeri e computo calendariale nell’Italia antica*. In: *AIQN-L* 17 (1995), 237–259.
- Pocetti 2006–2008 = —, *Variazioni sul tema del numerale per ‘sei’ nelle lingue dell’Italia antica*. In: *AIQN-L* 28 (2006–2008), 245–269.
- Prósper 2002 = Blanca María Prósper, *Lenguas y religiones prerromanas del Occidente de la Península Ibérica* (= *Acta Salmanticensia, Estudios filológicos* 295; Salamanca 2002).
- Prósper 2008 = Blanca M. Prósper, *Los nombres ‘itálicos’ de los astures meridionales*. In: *Conimbriga* 47 (2008), 145–169.

- Prósper 2012 = —, The Hispano-Celtic divinity *Ilurbeda*, gold mining in Western Hispania and the syntactic context of Celtiberian *Arkatobezom* ‘silver mine’. In: *Die Sprache* 49,1 (2011 [2012]), 53–83.
- Prósper 2013 = —, Sifting the evidence: New interpretations on Celtic and non-Celtic personal names of western Hispania in the light of phonetics, composition and suffixation. In: *Continental Celtic Word Formation*, ed. Juan L. García Alonso (= Aquilafuente 197; Salamanca 2013), 181–200.
- Prósper / Villar 2009 = — / Francisco Villar, Nueva inscripción lusitana procedente de Portalegre. In: *Emerita* 77 (2009), 1–32.
- Reyes Hernando 2000 = Olivia Virginia Reyes Hernando, El conjunto epigráfico de Belorado, Burgos (= *Arte y arqueología* 18; Valladolid 2000).
- Rix 1976 = Helmut Rix, *Historische Grammatik des Griechischen. Laut- und Formenlehre* (Darmstadt 1976).
- Rix 2002 = —, *Sabellische Texte* (Heidelberg 2002).
- Rubio Orecilla 2003 = Francisco J. Rubio Orecilla, Acerca de nuevas y viejas inscripciones. In: *Palaeohispanica* 3 (2003), 121–153.
- Salomies 2009 = Olli Salomies, Nomi personali derivati da numerali a Roma. In: *L’onomastica dell’Italia antica. Aspetti linguistici, storici, culturali, tipologici e classificatori*, ed. Paolo Poccetti (Roma 2009), 515–531.
- Sastre Prats 2002 = Inés Sastre Prats, Onomástica y relaciones políticas en la epigrafía del Conventus Asturum durante el alto imperio (= *Anejos de Archivo español de arqueología* 25; Madrid 2002).
- Schindler 1977 = Jochem Schindler, Notizen zum Sieversschen Gesetz. In: *Die Sprache* 23 (1977), 56–65.
- Schmidt 1992 = Gernot Schmidt, Indogermanische Ordinalzahlen. In: *IF* 97 (1992), 197–235.
- Schmoll 1959 = Ulrich Schmoll, *Die Sprachen der vorkeltischen Indogermanen Hispaniens und das Keltiberische* (Wiesbaden 1959).
- Schrijver 1991 = Peter Schrijver, *The Reflexes of the Proto-Indo-European Laryngeals in Latin* (= *Leiden Studies in Indo-European* 2; Amsterdam – Atlanta 1991).
- Schrijver 1993 = —, *Varia. IV: OIr. deec, deac*. In: *Ériu* 44 (1993), 181–184.
- Schrijver 1995 = —, *Studies in British Celtic historical phonology* (= *Leiden Studies in Indo-European* 5; Amsterdam – Atlanta 1995).
- Stiehle 1856 = Robert Stiehle, *Der Geograph Artemidoros von Ephesos*. In: *Philologus* 11 (1856), 193–244.

- Stifter 2002 = David Stifter, A Contribution to Celtiberian Etymology. In: *Die Sprache* 41 (1999 [2002]), 56–72.
- Stylow 2000 = Armin U. Stylow, Algunas precisiones epigráficas sobre la estela de Gualda (Cifuentes, Guadalajara). In: *Archivo español de Arqueología* 73 (2000), 269–272.
- Swiggers 1988 = Pierre Swiggers, Oscan *trutum*. In: A Linguistic Happening. Studies in Anatolian, Italic, and other Indo-European languages. Gedenkschr. Ben Schwartz, ed. Yoël Arbeitman (= Cahiers de l’Institut de Linguistique de Louvain, Bibliothèque 42; Louvaine-la-Neuve 1988), 373–381.
- Szemerényi 1960 = Oswald Szemerényi, Studies in the Indo-European system of numerals (Heidelberg 1960).
- Thurneysen 1946 = Rudolf Thurneysen, A Grammar of Old Irish (Dublin 1946).
- Tovar 1954 = Antonio Tovar, Numerales indoeuropeos en Hispania. In: *Zephyrus* 5 (1954), 17–22.
- de Vaan 2008 = Michiel de Vaan, Etymological dictionary of Latin and the other Italic languages (= Leiden Indo-European Etymological Dictionary Series 7; Leiden 2008).
- Vennemann 1988 = Theo Vennemann, Preference Laws for Syllabic Structure and the Explanation of Sound Change. With Special Reference to German, Germanic, Italic and Latin (Berlin etc. 1988).
- Villar 1994 = Francisco Villar, Los NP en *Pent-*, *Pint-* y las lenguas indoeuropeas prerromanas de la Península Ibérica. In: *Indogermanica et Caucasia*. Festschr. Karl Horst Schmidt, ed. Roland Bielmeier et al. (= Untersuchungen zur indogerman. Sprach- und Kulturwissenschaft N.F. 6; Berlin – New York 1994), 234–264.
- Villar 1995 = —, A New Interpretation of Celtiberian grammar (= IBS, Vorträge und kleinere Schriften 62; Innsbruck 1995).
- Waanders 1992 = Frederik M. J. Waanders, Greek. In: Gvozdanović 1992, 369–388.
- Weiss 2002 = Michael Weiss, Observations on the South Picene Inscription TE 1 (S. Omero). In: *Indo-European Perspectives*, ed. Mark R. V. Southern (= JIEST, Monograph 43; Washington 2002), 351–366.
- Weiss 2010 = —, Language and Ritual in Sabellic Italy. The ritual complex of the third and fourth Tabulae Iguvinae (= Brill’s Studies in Indo-European Language and Linguistics 1; Leiden – Boston 2010).

West 2007 = Martin L. West, *Indo-European Poetry and Myth* (Oxford 2007).

WOU = Jürgen Untermann, *Wörterbuch des Oskisch-Umbrischen* (Heidelberg 2000).

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