

nēmum, *sētum* und *risum*, *gutum*, *bundum* allzusehr aus den Augen. Das *ē*-Perfekt soll sich im Germanischen durch Analogie ausgebreitet haben. Dass es nicht in die Klasse *reisa*, *giuta*, *binda* eindrang, ist leicht begreiflich, aber weshalb es überhaupt an Boden gewann, desto schwerer. Für die auf Geräuschlaut ausgehenden Wurzeln pflegt man mit verdrängten Unformen wie **stum* **stans* als den lautgesetzlichen Repräsentanten der schwachen Formen zu operieren. Das mag angehen. Aber wie kam man bei der Wurzel auf Liquida oder Nasal zur Bevorzugung einer Analogiebildung got. *nemum*? Denn wenn *numans*, wie allgemein und mit gutem Grunde angenommen wird, eine lautgesetzliche schwache Form ist, so muss man nach den bisherigen Anschauungen doch konsequenterweise auch ein lautgesetzliches **numum* voraussetzen, und es bleibt unbegreiflich, wie diese Form trotz des dreifachen Schutzes, den die Assoziationsgruppen *risum*: *risans*, *gutum*, *gutans*, *bundum*: *bundans* boten, verdrängt werden konnte. Das Rätsel löst sich, wenn wir annehmen, dass es idg. zwar ein *nēmam̥*, *sēdam̥* (aus **nēmam̥*, **sēdam̥*), aber höchstens sporadisch die Analogiebildungen **rērisem̥*, **nenam̥* gegeben habe. Die kurze Reduplikationssilbe fiel im Germanischen lautgesetzlich ab¹⁾. Got. *munum*, *skulum* sind wie *witum* offenbar von vornherein ohne Reduplikation gebildet.

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Victor Michels.

On the so-called root-determinatives in the Indo-European languages.

The twelfth volume of the American Journal of Philology contains in its opening pages (1—29) an article of mine entitled 'On adaptation of suffixes in congeneric classes of substantives'. On p. 28 I alluded to the possibilities of assimilation and adaptation among congeneric verbs, and I wish now to extend my observations upon this subject, and bring them to bear upon the question of the so-called root-determin-

1) Über *lailōt*, *saisō* bei anderer Gelegenheit.

atives. There is not, and there cannot be any difference in principle between the attractiveness of semasiologically kindred verbs, and semasiologically kindred nouns. But the circumstances which appear here show that the world of action and condition is not so plastic and fruitful in linguistic expression and versatility as the world of things and their qualities. I do not undertake to account for this psychologically, but I am in the position to state without fear of contradiction that the stately mass, e. g. of the verbs of motion, or the verbs of cognition will nowhere exhibit so great a degree of assimilateness as the substantival categories of parts of the body, animals, or colors. Of course this may be sheer accident. Moreover, in some measure at least, the reason is to be sought after in the fact that in the I. E. languages the lexically significant part of the verb is for the most part fenced in by two or more suffixes, preëmpted for general modifications of the ultimate radical meaning, while in the majority of nouns there is but one. In other words, and more plainly, if we cut off the personal inflections from the verbs, and the case-endings from the nouns, we are left in the majority of cases with a suffixed verbal form, and a suffixed nominal form. But with this marked difference: the verbal suffix is needed ardently for the purpose of expressing more or less indispensable relations: voice, tense, and mood, while the nominal suffix usually appears in historical times without the embarrassment of any too salient significance, until it is adapted. Now, adaptation in noun-categories in any one direction is never so grasping and insistent as not to leave any given suffix essentially free to move in other directions also. For instance, *néu* — *nu* is a present suffix, *ḡé* — *ḡ* an optative suffix from earliest to latest times in I. E. speech. But the suffix *r(t)* in words like ἥπαρ 'liver', ὡρέαρ 'well', πείραρ 'end' never exhibits any function so exacting and exclusive as to render it unavailable for adaptation, and, accordingly, it is adapted in a considerable measure to designations of parts of the body.

Occasionally even a verbal suffix finds itself, owing to a glutted market, unabsorbed by any very pressing usefulness, ready and willing to be infused with new meaning, irradiated by a new light. So, e. g. the verbal suffix *-iáu* designates

in a considerable number of instances 'to suffer from a certain disease': ὀδοντιάω, λαρυγγιάω, πληνιάω, χειριάω, λιθιάω, ἀφριάω, μολυβδιάω, χονδριάω; the suffix -ιάω has adapted itself in a dozen verbs or so to the designation of religious acts and celebrations: βακχιάω, εὐιάω, ὀργιάω, θεσμοφοριάω, ἄκωλιάω, ἱθυμιάω, θαλιάω, θυσιάω, κυμποδιάω, ἀγιάω, μυστηριάω, etc.¹).

In Latin the inchoative value of the verbs in -*esco* is due to the accidentally inherent continuous character of a few verbs of the class: *adulesco*, *senesco*, *cresco*. One does not grow up, wax great or old in an instant, and this particular quality of gradualness presented itself to the Romans as a handy way of infusing with new life the suffix, which leads a very restricted and non-salient existence, not very important even as a present suffix, in every I. E. language. And yet this very same suffix clearly exhibits in proethnic times another adaptive advance along a line which could not from the very nature of the circumstances become very productive. No one to my knowledge has as yet observed that this suffix controls the oldest I. E. words for 'asking, wishing, searching':

IE.	<i>pr̥(ḱ)-ské-ti</i> 'ask'	<i>i(s)-ské-ti</i> 'search, wish'	<i>uṛ̥-ské-ti</i> 'wish'.
Sk.	<i>pr̥chāti</i>	<i>ichāti</i>	<i>vānchati</i>
Zd.	<i>peresaiti</i>	<i>isaiti</i>	—
Ohg.	<i>forscōn</i>	<i>eiscōn</i>	<i>wunscean</i> .
Lat.	<i>posco</i>	Umbr. <i>eiscurent</i> 'peposcerint'	—
Lith.	—	<i>j-ėszkóti</i>	—

Is this accidental, one may ask, and the answer is a categorical no. Precisely the assumption that the suffix in these words was felt adaptively to be significant accounts for another little riddle in connection with them. They all exhibit an unusually marked tendency to transfer the present suffix to other verbal formations, and to nouns also. In other words, in as much as the suffix had been infused with a lexical meaning (originally foreign to its character) there was no longer any propriety in restricting it to any particular formation: it became a part of the root, a root-determinative in the truest sense of the word. Hence the perfects *papr̥chimā* in Sk. and *peposcimur* in Latin are in all probability the representatives of an I. E. *pepr̥(ḱ)skm̥mā^x*, and still more signif-

1) Cf. M. Bréal Mémoires de la société de linguistique, VII 20.

icant is the appearance of the suffix *sk* in the abstract nouns of all three verbs:

I. E.	<i>pr(ĥ)skā</i> 'question'	<i>i(s)skā</i> 'wish'	<i>un̥ska</i> 'wish'
Sk.	<i>pr̥chā</i>	<i>ichā</i>	<i>vāñchā</i> .
Ohg.	<i>forsca</i>	<i>eisca</i>	<i>wunsc</i> .
Obg.	—	<i>iska</i>	—

Hence Nhg. *forsch-en*, *heisch-en*, and *wünsch-en* are established as roots, as free and productive as any other. The only point that in all probability will forever remain unknown is, which of the three roots furnished the starting point for the adaptation, i. e., in which of the three roots the *sk* was infused first with lexical meaning, so as to render it the fit exponent of the sense of the entire class.

Strikingly similar has been the fate of the present suffix *-to*. In general it is nondescript. But it has not failed to adapt itself to one clearly marked category. A number of verbs designating the acts of 'binding, twisting, bending, braiding, folding', and the like exhibit the suffix: the number is too large to be accidental:

1. Lat. *plecto*; Ohg. *flihtu*, *flehtan*; Obg. *plesti* for **plekt-ti* (or *plet-ti*, see the next). Nominal formations: Ohg. *flahta* 'flechte'; πλεκτή 'rope'.

2. Goth. *falpan* 'falten'; Obg. *plet-et̥s*. Nominal: Goth. *manag-falps*; Sk. *puṭa-* (**pṛṭa-*) 'fold, cornucopia'.

3. Lat. *pecto*; Ohg. *fih̥tu*¹); πεκτέω (πέκτω Poll. 7. 165. Hes.). Nominal: *pecten*.

4. Lat. *necto* = I. E. **negh-tō*, **negdhō*. The latter was easily felt to be *negdh-ō*, and since there were thus the two roots *negh* and *negdh* a root *nedh* was abstracted, perhaps as a third form by what might be called subtractive analogy, the converse of cumulative analogy²). This root *nedh* in Sk. *naddhā-* 'bound', Ohg. *nista* 'fasten'³).

5) Goth. *ga-wida*, Perf. *ga-wap* Ohg. *witu* 'bind'. With infixed nasal Goth. *winda*; Ohg. *wintu* 'wind'. Cf. Sk. *vi-tā-s* 'enfolded'.

1) Vgl. Brugmann Grundriss II 1039, Note. 2.

2) That is, just as *negh* and *nedh* might yield *negdh*, so *negh* and *negdh* yielded *nedh*.

3) The latter with the suffix *-to* a second time, accentuating anew the class-significance inherent in *flihtu*, *fih̥tu*, *witu* etc.

6. Sk. *věštātē* 'enfold oneself'; Lith. *výstau* 'to fold a child into its bedding'.

7. Perhaps Lat. *flecto*; cf. for the meaning Obg. *krę-taja* 'flecto'.

Here again the *t* has started upon the road towards true determinative character by adaptation, as is attested by the spread of the suffix over all sorts of non-present forms. We may ask merely in addition whether this process was not aided in some measure by one or two I. E. roots with inherent *t*: *uert* 'to turn' (cf. Sk. *varṭana*, Obg. *vrěteno* 'spindle') and *kert* or *qert* 'twist, braid' in Sk. *kr-ṇā-t-ti* 'spin', *crt-āti* 'tie'; *κάρταλος* 'basket' etc.¹). It is quite possible that the adaptation of the suffix *-to* to this use started with either or both of these²).

In general, however, the formative elements of verbs are engaged in a life of at least respectable usefulness, and the processes of assimilation and adaptation must restrict themselves to the radical kernel. Obviously, now, the field is limited and the materials are not pliable. Nhg. *heischen* (Ohg. *eiscōn*) owes its *h* to its congener *heissen*. This case throws a strong light on the so-called determinatives, since from the point of view of the vulgate analysis *ss* and *sch* in the two words are entitled to the name precisely as much as, e. g. *dh* and *bh* in the two Sk. roots *śudh* and *śubh*, and we are led to the positing of a primary root *hei* — sheer nonsense! Our suggestion, l. c. p. 29, that dialectic English *ketch* (for

1) Cf. Per Persson *Zur Lehre von der Wurzelerweiterung und Wurzelvariation* p. 29 ff.

2) Once more, I believe the verbal element *t* has started upon an adaptive advance. I ask why do German *tasten* (English *taste*) and *kosten* end alike? The former was borrowed from the Romance, Italian *tastare*, French *tâter* at about 1200 A. D. Late Latin *taxare* 'to touch vigorously' approaches most nearly to *tastare* but the *t* remains unexplained. Diez has assumed an ideal **taxitäre* as the start-form for *tastare*. Kluge in the fourth edition of his etymological lexicon follows him. But we can dispense with that construction: *tastare* is a product of *taxare* and its intensely congeneric pendant Lat. *gustare*. From these on the one hand French *goûter* and *tâter*; and, since *tastare* upon entering the Germanic domain met the offspring of I. E. **gustō*, we find there *tasten* (*taste*) and *kosten*. And now there remains only for some one to find a cause not utterly mechanical for the extension of the I. E. root *geus* to *gust*.

catch) is due to its congener *fēch* illustrates the limitations: an entire class of verbs in-*ēch* (root-determinative!) with the generic value 'to bring to the agent' is precluded by the formally unassimilable character of the verbs involved. I have been for many years conscious of an irrepressible desire to assimilate the two congeneric verbs *quench* and *squelch* in both directions by forming *squench* and **quelch*, and recently my attention was drawn to a passage in Page's negro dialect stories 'In ole Virgina', p. 53 (New-York 1887): '*She le me squench my thirst kissin' her hand*'¹⁾, and I should not for my part be shocked at meeting somewhere a tentative **quelch*. All that may be expected in general from verbal roots is the assimilation of two or three, rarely more, congeneric forms in cases when the phonetic structure is favorable. But the importance of this effect is in an inverse ratio to its scope, and it bears heavily upon the question of the determinatives. We take it for granted, of course, that the earlier periods of I. E. speech were no more exempt from these processes than the latest.

Let us now draw one or two illustrations from an older period of I. E. speech: The root *bh̥* has in the Veda a pendant *bhyas* of unquestioned meaning and impenetrable obscurity of origin, when treated from the point of view of the vulgate theory. Whitney, *Roots*, p. 115 compares rather desperately the stem *bhiyas-*, but this is restricted to the inf. *bhiyāsē*, and the -aor. part. *bhiyāsana-*. In both cases the element *as* is felt to be an integral part of the endings-*āsē*, and -*āsana-*, employed with sufficient frequency in connection with all sorts of roots, and in no way calculated to establish any particular association with *bh̥* any more than with another root. Besides, *bhyas* is not *bhiyas*. The root *bhyas* is a tentative formation: in the RV. one finite form, *abhyasēthām*; in the SV. one, *bhyāsat*; in the AV. two nouns *ud-bhyas-ā-*, and *sva-bhyas-ā-*. The congeneric root *tras* 'tremble' (τρέω) is quite common, and in the RV. two of the three passages containing *tras* exhibit also *bh̥*: RV. VIII 49. 11, *nīr atrasan tāmiṣcīr ābhāi-ṣuḥ*; VI 14. 4, *yāsya trāsanti śāvasaḥ saçākṣi śatrāvō bhiyā*. See also AV. V. 21. 2, 5; ÇB. III 1. 2. 17, *sā bīb-*

1) 'She let me quench my thirst kissing her hand'.

hyatī trasati; and Mahābh. III 3080, *bhayāt trasyasi*. I believe I can fairly feel how the two congeneric ideas of 'fear and trembling', 'furcht und zittern' (note the phrases!) were blended into the one tentative *bhyas*.

The root *tvakṣ* is apparently restricted to the Aryan languages: Ved. *tvākṣas* = Zd. *ṇvaḥsanh* 'strength'; Ved. *tvākṣīyas* and Zd. *ṇvaḥśišta* 'stronger, strongest'. There is on the other hand an I. E. root *teks*, Ved. *takṣ* which is universally explained as being in some manner or other connected with *tvakṣ*. And AV. XII 3. 33, *tvāstre 'va rūpām sukṛtam svādhitā* 'your form is well-made as if by a carpenter with his axe', when compared with RV. I. 130. 4, *tāṣṭe 'va vṛkṣām . . . ni vṛṣcasi* 'like a carpenter you hew down the tree' (cf. also RV. VII 32. 29) proves that the Hindus felt the correlation between the two roots. The grammarians and etymologists also frequently explain the root *tvakṣ* by *takṣ*, and alliterative phrases like *tvāṣṭā tataḥkṣa*, RV. I 52. 7 (cf. V 31. 4), in themselves of little significance, strengthen the conviction that there is some formal relation between the two roots. Grassmann defines *tvakṣ* in a singularly happy manner as 'originally identical with *takṣ*, but emphasizing especially the notion of strength'. I assume that *tvakṣ* has arisen secondarily upon the basis of *takṣ* under the influence of some root which added to the idea of 'working' a shade of the congeneric idea 'to be strong'. The I. E. root *ueks* 'wax', Aryan *vakṣ* suggests itself as a plausible source of the modification; I can imagine also the root *teu*, *tu* 'to be strong' (Sk. *tāviti*, *tuvī-kūrmī*; Zd. *fra-tavaṭ*; Goth. *þiva*). But this is fairly certain: the connection is due to assimilation of some sort; mechanical analysis leads nowhere at all, there is no advantage in a root-determinative *akṣ* or in prefixes *t* and *tu*.

I shall indicate briefly one more root of this kind: Vedic *tsar* with its singular *anlaut* and perfective value 'to sneak up to with malicious intent, beschleichen' is in all probability the root *sar* with strong dash of the root *tar*. In ÇB. I 6. 3. 28, *bhratrēvyam upatsarya vajrēṇa hanti* 'stealing up to his rival he slays him with the thunderbolt' we can, I believe, feel the root *sar*, overlaid by a crust of *tar*, e. g. in RV. II 11. 19, *tārantō viśva spṛdhah* 'overcoming all enemies'.

The two nouns, I. E. *rsén* and *ursén* 'male animal', accompanied by their pendants *rsn-bhó* and *ursn-bhó* cannot be well imagined without some moment of common formal history. The roots *ers* and *yers* 'to flow' invite a similar conclusion. In a liturgical formula in Lātyāyana's *Ṛgveda-sūtra* III 5. 15 (cf. AV. IX 1. 9) this relation is felt anew: *āpō yē śakvarā rṣabhā yē svarājas tē arṣantu tē varṣantu* 'may the mighty, lusty, all-powerful waters flow and stream'. Let us now consider all the possible meanings of this correspondence:

1. There was a root *er* signifying motion, and another root *yers* 'flow'. The root *er* doubtless had occasion to specialize its general meaning 'go' in the direction of 'flow', and may then have fallen under the influence of *yers*, to such an extent as so adopt its *s* in deference to its congeneric character, aided by the partial formal similarity.

2. Conversely, the assimilation might have operated from a root *ers* to a root *yer*.

3. *yers* may be a modification of *ers* due to the fact that various I. E. words for 'water' began with *y*: *yōr* or *yēr* (Sk. *vār*, *vārī*); *yódr*, *ud-nós* (Goth. *vato*, *ūdw*, Sk. *ud-ná-s*), etc.

4. *yers* may have arisen by prefixing to *ers* some morphologically or etymologically independent element *y*.

5. Both *ers* and *yers* may have arisen from more primitive root *er* and *yer* by the addition of a morphologically or etymologically independent element *s*. The structure of each was without reference to the other. Their obvious association in speech is secondary, alliterative, paronomastic.

The last of these possibilities represents the vulgate view, and is to my thinking the least probable. Persson, in the excellent treatise quoted above (p. 84 ff.), treats the two roots without the least suspicion that they may in the course of their lives have spun threads across from one to the other. *yers* in his view is from a root *yer* with the determinative *s*; the root *yer* appears in Sk. *vār* 'water', etc. But no primary verbal root *yer* 'to flow' is found anywhere in the I. E. languages, and Sk. *vār* etc. may be derived from a variety of other roots, if, indeed, it stands in need of derivation at all. At any rate, until more certain knowledge

comes, we may regard it as absolutely essential to progress in this line of inquiry that neither of these roots shall be treated without reference to the other.

On p. 193 (nr. 26) Persson treats the root *stemb(h)* 'fix, establish' according to the time-honored plan: he divides the root into *st-embh*, supporting this division by comparison with the roots *st-ib(h)* and *st-ubh*. But there is no mention in the entire work of the most obvious parallelism of all, namely, with the root *skembh* which has exactly the same meanings. The following table speaks for itself:

	Verbal Formations.	Nominal Formations.
Pres. Ind.	<i>skabhnāti</i> : <i>stabhnāti</i>	<i>skabha</i> : <i>stabha</i>
"	<i>skabhnōti</i> : <i>stabhnōti</i>	<i>skambhá</i> : <i>stambhá</i>
Pres. Imp.	<i>skabhānā</i> : <i>stabhānā</i>	<i>skambhaka</i> : <i>stambhaka</i>
Pres. Ind.	<i>skabhāyāti</i> : <i>stabhāyāti</i>	<i>skambhana</i> : <i>stambhana</i>
Perf. Pass. Part.	<i>skabhītā</i> : <i>stabhītā</i>	<i>skambhin</i> : <i>stambhin</i>

Avestan *skemba* = Sk. *skambhá*, *scimbaiōiþ* = *skambhayati* (cf. Bartholomae, *Studien zur indogermanischen Sprachgeschichte* II 104); and *stembana* = *stambhana* secure a common Aryan basis for the two roots; Lith. *stamba* 'stem' renders *stembh* proethnic, but the European representatives of *skembh* are none too certain: cf. Vaniček *Lateinische Sprache*², p. 310; Fick⁴, p. 310. One point is glaringly obvious, the root *stembh* cannot unfold its entire history without contributing to the history of *skembh*, and vice versa. I shall not repeat here all the possibilities of contact between the two roots, but simply suggest as follows: *skembh* betrays no etymological divisibility; perhaps *skembh* came in proethnic times under the influence of its congener, the root *st(h)ā* 'stand', so as to be modified to *st(h)embh*. At any rate, if we are to operate with root-determinatives, *sk* and *st* have here the clearest title to the name, and they are at the beginning, and not at the end. In truth, whichever way we divide these roots the hyphen in the middle is misleading, indicating a process which has in all probability not taken place in fact.

Persson *ib.* pp. 41, 98, 229 derives the root *ued* in Sk. *vadati*, αὐδάω, etc. into *u-ed*, i. e. the root *u* 'speak' and determinative *-ed*. Aside from the exceeding doubtfulness of the etymology, why not also divide *ueq* in *ῥέπος*, *vācas* in the same way, and there is a root-determinative *-eq*. Yet

there is no mention of this root in the entire book. But let us compare — and why should we not? — with *ueq* the I. E. root *seq*, and the entire matter is again lifted out of the domain of the hyphen analysis. These two roots jostle one another, and but for comparative grammar ἔννεπε in Ἄνδρα μοι ἔννεπε Μοῦσα would doubtless to-day be triumphantly regarded as *ἐν *ἔννεπε*. But Ebel KZ. II 47; Kuhn und Schleichers Beiträge II 165, showed that ἔννεπε = Arch. Lat. *insece*, and there is precisely the same degree of inherent probability of a formal relation between *ueq* and *seq* as between *ueq* and *ued*. Neither connection, however, seems to make for agglutinative analysis: the root *u* in the latter pair is as much in the air as the root *eq* in the former. Congeneric assimilation seems to have been at work in some way in this ancient triad of roots, in which *ueq* holds a middle position, pointing with initial to *ued* and its final to *seq* (*ued* > *ueq* < *seq*).

Persson, loc. cit. p. 199, treats I. E. *pezd*, Lat. *pēdo*, *pōdex*, βδέω, New-Slovenic *pezdēti* as if from an original root *pes* 'blow' and a root-determinative *d*. The root *pes* he finds in Mhg. *vīsen*, ON. *fisa* 'pēdere' aside from other much less likely combinations such as with Sk. *pāsu* 'dust'. I doubt whether the words in question are derived from a root meaning 'blow', since this leaves out πέος = Sk. *pāsas*, Lat. *pēnis*; cf. also πόςθη and Ags. *faselt* 'penis'. Notwithstanding the difference in meaning the two categories are broadly congeneric, and the idea of 'blow' does not suit. But further, I do not believe in any discussion of **pezdō* 'pēdo' which does not consider at the same time the sematic equivalent, I. E. **perdō*, πέπεται, Sk. *pardatē* (Dhātup.), Ohg. *firzan*, etc. And notice further the parallelism as far as the 'root-determinative' is concerned of χέζω, κέχθα, χόθω, Sk. *hādāti*, Zd. *zadānē* 'podex', and, again, ON. *skīta*, Ags. *scītan*, Ohg. *scīzan* which with Lith. *skėdu* point again to an I. E. root ending in *d*. Sit venia verbo, the Aryan fore-fathers were notoriously keen about these functions, manifold as they are and uncommonly concentrated locally, and their congeneric character was accentuated in some of these words by the adaptation of the intrinsically chaste, voiced alveolar stop *d* to matters pertaining to the podex. Cf. also Sk. *bhasād*, and perhaps as an op-

posite to **pezdo*, **perdo* an I. E. **skerdo*, Sk. *chard* 'vomit'; cf. Obg. *skarędz* 'nauseating'.

I shall indicate here briefly one other group without entering into details. A large number of I. E. roots for 'sound' end in *n*:

1. *dhuen*: Sk. *dhvánati*; ON. *dynja*, Ags. *dynnan* (Engl. *din*); Mhg. *dünen*.

2. *dhren*: ON. *drynja* 'roar'; Goth. *drunjus* 'sound'; *Θρηνο* 'dirge'; Sk. (Dhātup.) *dhraṇati*.

3. *sten*: Sk. *stánati*; *στένω*, *τόνο*; ON. *stynja*.

4. *ten*: Ved. *tanyati* 'thunder'; Lat. *tonare tonitru*, and the German derivatives.

5. *syen*: Sk. *svánati*; Zd. *hvanañt*; Lat. *sonere*, *sonāre*.

6. *ghuen*: Obg. *zvñeti* 'sound'; *zvonz* 'sound'. This root appears to be a direct modification, in deference to sound-roots, of I. E. *ghey* 'call', Obg. *zova* (cf. Ved. *hávate*).

7. *quen*: Perhaps also the Sk. root *kvan* 'sound' with its completer rhyming upon *dhvan* and *svan* belongs to this group; it may thus be connected indirectly with *κανάω* 'sound'; Lat. *canit*; Erse *canaid*. The *n* may be Prākritic. Note the special suffixal relation between *κανάω* 'clash' and *τρονάω* 'groan' ¹).

The congeneric character of this group is indicated vividly to-day in Nhg. *dröhnen*, *stöhnen* and *tönen* (the latter secondarily from the loan-word *ton* (*τόνο*)).

1) As far as I can judge at present sound-roots seem to be most sensitive to congeneric influence, almost rivaling the more prominent sematic noun-categories like animals, seasons etc. The roots *yed*, *reyd*, *ghrēd* (Goth. *grētan*) *gheld* (Obg. *gelzōn*), *bhlēd* (Obg. *blāzan*) exhibit an adaptive *d* in one or the other case; cf. also *χρόμαδος* and *κέλαδος*; *χελιδών*, Lat. *hirundo*, and *ἀηδών*. A considerable list of sound-words in *k* has been assembled by Persson l. c. pp. 12 ff., and a smaller one in *m* p. 69. By the side of the root *syen* itself is the root *syer* 'sound', a variation between *n* and *r* which somehow reminds us of the same in that most prominent of all words for season *syen* — *syer* 'sun, light' (Sk. *sūar*; Zd. *hūēng*, *hware*; Goth. *sun-na*). Sound and light! The especial adaptiveness of the sound-category is therefore perhaps not far removed psychologically from that of light, times, and seasons. We need not expect that the relation was ever felt more than in a half-conscious fashion, or that our sympathy with it (*nachempfindung*) is likely ever to become very clear in our more schematic latter day thought.

Without self-mystification one can not doubt that the similarity of these roots is founded in some degree upon their congeneric quality. And note what becomes of the theory of determinatives in the light of such a group. The 'determinatives' are all at the beginning, in other words the ancient theory resolves itself pretty much into thin air. There is no doubt that here and there a purely inflectional element fastens itself upon the root, but even there we ought to inquire for reasons in detail case by case, just as in the matter of the root-triad *pr(ĥ)sk*, *i(s)k*, and *uṅsk*, above. To illustrate it by just one more case, peculiarly prominent in these discussions, *kleyus* from *kley*, with 'determinative' *s*. Why should a morphological *s* have fastened itself so persistently upon this root? I doubt it, and prefer to point out that final *s* is elsewhere prominent in words and things for hearing: I. E. *ous* 'ear'; Goth. *haus-jan*; ἀκού(ς)ω (?), etc. As due do assimilation with such words we can really understand the *s* of *kleyus*. I do not see but what the most constant and persistent factor in the development of the root-form is its total environment in speech rather than its own meager little self in any kind of individualized observation. Throw a bucket of sweet water into the ocean and the brine will permeate it sooner or later. The sematically significant part of the word is even more sensitive than its morphological parts, since it lives necessarily in an ocean of homonymy and synonymy. If we watch the more silent operations of our own mind, those of the flimsier, more fanciful, semi-symbolic kind are in reality fully at work by the side of the logical and clear-cut discriminations. The etymology of a word is, historically speaking, not only the primeval element from which the word started, but everything else which the speaker has thought into the word, as soon as this thought gains formal expression. Take e. g. the word *bhasād* 'podex' mentioned above, it has been assumed that it contains the root *bhas* 'blow' which is quite likely¹). But further we have shown above that the *d* is in all probability significant, being as it were the 'leitmotiv' of the class, and

1) But it is also possible that the word began originally with a *p* (cf. *pōdex*) and was assimilated secondarily to root *bhas*, or *bhāsas* 'podex'.

finally, I feel certain that the Hindu had in mind the root *sad* 'sit' on uttering the word, and only a shade less certain that the root *sad* played some part in its formal configuration. The more this sort of study weans itself from mechanical analysis in favor of sympathetic philological and psychological watchfulness of the intimate blending of the individual word with all that lies about it the better will be the results. The initial sounds of roots may be assimilated, and the result apparently is determinatives at the end (*heischen* and *heissen*); assimilation of root-vowels yields vocalic series; and assimilation at the end yields initial determinatives¹).

Limitations of space forbid further discussion and illustration. I reserve for myself the pleasing privilege of reverting shortly to the same subject in fuller presentation and with additional points of view.

Johns Hopkins University,

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Maurice Bloomfield.

1. Der Präsensstypus λιμπάνω, 2. ind. *pr̥thivi*.

Der Präsensstypus λιμπάνω.

Die griechischen Präsensstypen mit inlautendem Nasal und suffixalem -av- werden allgemein mit den nasalinfigierenden Präsensstypen der verwandten Sprachen zusammengestellt, indem man sie teils als Vorstufen dieser Bildung oder als griechische Kontamination zweier Bildungen oder als schon grundsprach-

1) Even the interchange between surds and sonants at the end of I. E. roots is not always a purely physiological phenomenon. The root *ḱueṛt* in Sk. *śvētā* 'white', etc. seems to have a parallel *ḱueṛd* in Goth. *weits* 'white', etc. So E. Leumann *Etymologisches Wörterbuch der Sanskrit-Sprache*, p. XIII. But see my article on 'Adaptation' (quoted at the beginning), p. 16, note 2, where it is suggested that *weits* owes its *t* to the analogy of its opposite **swarts* 'black'.