The Indo-European Root *dheugh-: Its Morphology, Meaning, Etymology (in Comparison with Similar Forms)[*]

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The Old Indic root *duh-* 'milk' is considered in this article. The diachronic and etymological analysis shows that it is a secondary meaning of the root. Its Indo-European ancestor *dhéugh- /*dhughé-* meant 'to create', i.e. 'to spread (live) force' (barytone variant) / 'to have (live) force' (oxytone variant). In Old Indic the process of cow milking, which was identified also with the pressure of Soma, had great significance. Therefore, the root *dheugh-* received the new meaning 'to milk'.

The root *duh-* has the form of a so-called non-dental (non-standard) middle *duhé < *dhugh-é-i* (present with present marker -i) / *áduhat < *é-dhugh-é-t* (preterit with secondary -t) in Old Indic. Thus, these forms represent the old verbal form with stressed ending, and without any inflection. Such middle forms designate the inner state of the subject, its potencies, and uncontrolled processes in Old Indic. The form *duhé/áduhat* has an immediate parallel in Hittite *duggari* 'is seen; is important'. In other languages (Italic, Celtic, and Baltic) there are several traces of these stative verbal forms with zero inflections. The Baltic ones can be stative verbs or traces of old adjectives designating processes and inner states, with zero-ending: *šãla* (verb) = *šálta* (adjective) 'it is cold' (<I-E *kolé/*kol-té*). All these forms descend from the same prototype: a form which reflects a bare stem with stressed ending *-e/-o* and designates the inner state, potency, uncontrolled process. This form was in strong opposition with the barytone form indicating the action controlled by the subject, its outer activity.

1. *Old Indic* duh *and its Indo-European parallels*

In the Vedic verbal system there is an ending of the 3 sg. middle in *-e.* It occurs in few verbs and seems to be an Indo-Iranian morphological innovation, which coincides in its form

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with the Greek 3 sg. active -ει (Birwe 1956:19). This form has
been studied repeatedly (cf. Cardona 1961; Leumann 1952,
and the pioneer work of J. Wackernagel, 1907). In my article
(Krasukhin 1989) there is a whole list of the verbs with this
form (so-called non-dental or non-standard middle). Its
morpheme seems to resemble the Latin perfect (3 sg): the
attested forms *posideit, redieit, fuveit* (Safarewicz 1967:112) show
a possible contamination of the perfect ending -*e*, the emphatic
particle -*i* and the secondary element -*t*, which may be
compared with secondary -*t* in the middle preterit Ved. *aduhat*
(see below), cf. the Venetic perfect *astiteit* with the same
inflection (Lejeune 1967). But the function and semantics of
the Latin and Venetic perfect strongly differ from the Vedic
non-standard medium: middle present active vs. preterit with
an idea of completeness. On the other side, many Vedic non-
standard middle forms do not differ from dental middle forms:
śáye = postvedic *śeté, dadhé* = *dádhate* and so forth. Therefore it is
necessary to make a formal analysis of these forms. Manu
Leumann's (1952) studies are instructive. He considers these
forms as Old Indic innovations. The flection -*ran* is connected
with the system of the aorist and perfect, cf 3 pl. -*ur* < *-ṛs,
Avestan -*rəš* (Ved. *cikitur* - Avest. *čikōitərəš* 'they thought').
Moreover, the flection -*re* is attested in the middle perfect,
which is itself a result of innovation. Therefore, the presence of
the flection -*e* (*-*ai*) in 3 sg. and -*re* (*-*rai*) in 3 pl. presents is
supported by the influence of the middle perfect.

Based on the studies of Leumann, Y. Stepanov has
suggested that only two pairs of forms are old: *śáye/śeré* 'lie' and
duhé/duhré 'milk'. The first verbal root is archaic as the verbs of
the basic position of one's body (four basic verbs: "stand",
"seat", "lie", and "go"), but the justification of a morphological
archaism in the verb "milk" isn't clear (Stepanov 1989: 40).
Stepanov mentioned the observation of J. Narten (1964:70) that
the 3 pl. *duhaté* (standard middle) means 'they milk (the cow)
for themselves', and 3 pl. *duhré-* '(cows) are being milked'. This
is a very important difference, and it is necessary to observe the
synchronic semantics of the verbal root *duh-* in the *Ṛgveda.*

Before this, however, I must say some words about the
criteria for the antiquity of the verbal forms. The middle forms
with nasal infixes are without doubt new, e.g. *śṛnvé* 'it is heard',
kṛnvé 'it is made' among others. The really old forms have a
zero-grade root vocalism (if the structure of the root permits),

and the stressed flection. The difficult question about "acrostatic" or "proterodynamic" verbs I leave here without any discussion (cf: Narten 1968; Insler 1969), but it is necessary to define the character of Vedic *śaye*. This verbal root really hasn't any form with zero grade vocalism, cf. Avestan *saete* 'it lies', Greek κεῖται 'idem'; the non-dental form may correspond to Luvian *ziia* (Melchert 1987), for the form *śáye* (< *kei-e-i*) may be regarded as archaic, and we have such a list of most archaic verbal forms: *śáye, duhé, bruvé* 'it is said (cf. Avest. *mruve* 'idem'), *mahé* 'it becomes great', *huvé* 'it is called'.

But the true semantic opposition between the dental and non-dental middle is found in the root *duh-* only. Y. S. Stepanov has connected its semantic difference with the active typology of Proto-Indo-European and with the difference between the human and animate, non-human beings. I don't support the idea about an active PIE typology, and I believe that the point is that the subject of the sentence has different relations with different predicates (predicate of action vs. predicates of state).

First of all, the prevalence of the middle finite forms in the *Ṛgveda* is important. One athematic active form is attested here: aorist or imperfect *ádhok* '(Indra)has milked' (IV, 19, 7). There are a pair of injunctives *dohat*, present *duháti*, present (or conjunctive) *dohati*, five middle 3 pl. *duhaté* (< *dhugh-ṇte*, which corresponds to unattested 3 sg. **dugdhé* < *dhugh-té*, and to post-vedic active *dógdhi* < *dhéugh-ti*). Besides that, two examples of 3 pl. don't correspond to the conditions of Narten: (1) *tāṃ duhra aryamā kartári* (RV 1, 139, 7) 'Aryaman and both makers milk them'; (2) *ádahran vyacas* (AV VIII, 10, 14) 'they have milked the space'. And there are 32 forms of middle non-dental present, middle perfect, and preterit (with secondary *-t;* the form *áduha* is attested in the *Maittareya-Saṃhita*, 3, 3, 4, 4 and 3, 4, 2, 2 only). The active meaning of the form *áduhat* is attested in *Vajasaneyi-Samhita*, 17, 7, 4: *áduhat ... gām* 'he has milked the cow'. TS 1, 7, 1, 1 we find *yajño 'suram áduhat* 'The priest milked the Asura' (i.e. "received good from him"), cf. Wackernagel 1953:536. The middle perfect differs from the middle present by the presence of root reduplication only: its flection and meaning are similar: *duhé/ duduhé, duhré/ duduhré*. In the RV, the active form 2 sg. is attested *dudohitha* (*mádhumat dudóhitha* (II, 13, 6) 'you milk a sweet drink'. But it had the analogous, non-archaic flection *-itha* (therefore *duh-* isn't a sēṭ-root), and one can assume that the form *duduhé* is older. Therefore, we

may consider the form *duduhé/duduhré* not as a middle perfect opposed to the ancient active perfect, but as an emphatic variant of the non-dental middle, cf. the idea of Safarewicz: the perfect with the inflection *-ei* is an emphatic perfect (Safarewicz 1967: 111-115). I'll consider the non-dental middle and perfect together.

Let us go to the Vedic contexts.

1. *duhé/duhré* without objects.

(1) Such constructions mean properties, possibilities, dispositions: *írāvatīr varuṇa dhenávo vām mádhumad vām síndhavo mitra duhre* (V, 69, 2) 'Varuna is giver of the cheerful drinking, cows are givers of honey, Mitra and rivers' milk nourish (i.e. give milk, can milk, have such property) for us.' One can see in the comparative construction: *yád ápītāso aṁśávo gávo ná duhré ūdnebhiḥ/ yád vā vánir ánūsata prá devayánta aśvína* (VIII, 9, 19) 'how the grown plants nourish from their stomachs, the cows of Soma (i.e. the creators of Soma), that illuminates the god-helping Aśvins', a similar half-adjective determination. This sentence speaks about the properties of the beings, it is subscribed by the participle *devayánta,* and the verb *duhra* is here dispositional. The comparison of milking with dripping (plants are milking, i.e. dripping) and with illuminating is important. Cf. the prayer: *nyàg vātó 'va vāti nyàk tapati súryaḥ/ nīcínam aghnyá duhe nyàg bhavatu te rápaḥ* (X, 60, 11) 'down the wind blows, down the sun gives out warmth, down the cow nourishes, let all your illness be down'. Nourishing is such a characteristic property of the cow, as the warmth of the sun, the blowing of the wind. The comparison of natural processes and of milking, and the presence of milking as a subject in the text of the magic charm is important.

(2) In other contexts the verb is concrete (*matíḥ) urúdharā iva duhe* (IX, 69, 1) '(the thought) nourishes as a great river'. The similarity of thinking and milking, and of a river's flowing is also instructive.

(3) This verb is concrete in such contexts: *ásya prajávatī gr̥hé 'saccantī divé-dive / íḷā dhenumátī duhe (prajavati)* (VIII, 3 1, 4) 'this cow with her children in her home, incomparable for the nourishing, gives pleasant drinking day-to-day'. The result of the nourishing is expressed by the instrumental *iḷā.* This result is due not to action, but to external reflex of an internal state. There is an analogous context: *rájā síndhūnām avasiṣṭa*

*vā́sa ṛtásya návam áruhad rájiṣṭhām/ apsú drapsó vāṛ́dhe śyenájuto
duhá īm pitā́ duha īm pitúr jā́m*(IX, 89, 2) 'the king of rivers has
dressed himself in the cloth of Law, built the ship of Justice; in
water the drop arose, (it is) swift as an eagle. Father Soma is
dripping, he is dripping with the posterity of the Father'. One
can see the similarity of *drapsó śyenájuta* and *pitár duhé;* it shows
the nearness of the verb *duhe* to the adjectives. Interesting is the
multiple government of the same verb: in the first instance, it is
without any object, in the second - with object, which means the
result of the process of milk-bearing, which isn't controlled by
grammatical subject.

(4) Cf. the government by verbs with an object-benefactive.
Verbs (with root *duh-*) occur in the *Ṛgveda* twice with such an
actant They are optative: *sā no dahīyād* (IV, 41, 5) 'let it (the
cow) nourish us' (accusative benefactive) and *duhīyán
mitrádhitaye yuváku* (I, 120, 9) 'let the one belonging to us (the
cow) nourish for friendly alliance' (dative beneficiary). The
meaning of these optatives despite the "active" ending -*t* does
not differ from middle *duhé/ duhré.* It shows that this -*t* is
secondary in this form, as in preterital *aduha-t.* Therefore, one
may assume one proto-form *duhīyá* from the PIE *dhugh-i̯é#.

(5) The accusative of stative verbs and verbs of
uncontrolled processes may be called a purely formal 'object';
as it was described above, it is isofunctional with the
instrumental. The accusative means here not an object of
action, but a resultant of process. It may be: *kṣirám* 'milk' (IX,
67, 2), *páyas* 'drinking (giving force)' (1, 166, 270, *aciram* 'fat'(I,
134, 6), *ghṛtám* 'fat' (for prayers)' (V, 12, 13), *rásam* 'juice, sap'
(I, 105, 2). They aren't all purely material things, but the
entities implored by the priests, prayers etc. In one context the
result of the process is 'love, joy' (*jóṣam*) *nír yád duhré śúcayo
jóṣam* (VI, 66, 4) 'brilliant Maruts are spreading the joy'. In
another context the verb becomes metaphorically 'to generate,
to create': *dhenúṣ, ṭa indra sūnṛ́tā yájamānāya sunvaté/ gā́m áśvam
pipiyúsi duhe* (VIII, 14, 3) 'The good milking cow creates the
cow (and) the horse for sacrificing Indra, for the dripping
belly'. So the set of such "objects" shows the importance of the
verb *duhé/ duhré* for the Vedic religion and rituals. The set of
subjects of this verb is also instructive. First of all it is the "cow",
naturally, the above mentioned *dhenú* (VIII, 14, 3), *dvijá dhenú*
(X, 61, 19) 'twice-born cow', *gā́uḥ* (X, 101, 9) 'cow or antelope',
dhenávaḥ (nom. pl., I, 134, 6). It may be Sarasvati (IX, 67, 32),

"wife"(I, 105, 2). The word for "milk" may have indirect meaning: "Soma, god's drink", also "joy, force", cf. some of the above-mentioned contexts, and *pavamánîr yó adhyeti ṛsibhih sáṃbhṛtam rásam/ tasmai sarasváti duhé kṣirám saprír madhúdakam* (IX, 67, 32) 'The song, which recognizes the gathered moisture with the wise men, Sarasvati gives for it the sweet milk (i.e. love, reverence)'. The milking seems to the offering: *vi̇́ ve devá ánu tát te yájur gur duhé yád éni divyám ghṛtám váḥ* (X, 12, 3) 'All the gods make offering to you; the antelope(or cow?) also drips with the offering-fat'. The milking makes the milker equal to the god.

There is no context where the form *duhé/ duhré* is passive. The passive form is *duhyate: átmanván nábho duhyate ghṛtám páyo ṛtásya nábhir amṛtam ví jáyate* (IX, 74, 4) 'the vivid moisture drips with the moisture and the fat; the omphalos (i.e. centre) of the Law is born'. The homogenity of *duhyate* and *jáyate* corresponds to the similarity of their grammatical meaning. The verb *jáyate* means the appearance of a new being with the influence of outer forces, *duhyate* means some transformation of being with the influence of the same (or *similar*) forces. On the contrary, the forms *duhé/ duhré*, as is argued from the above-mentioned contexts, do not mean the transformation of the being, but the manifestation of its inner forces and properties. Unlike the purely verbal form *duhyate*, *duhé* stands between the verb and the adjective.

The nearness of the non-dental middle and perfect in their form and meaning was subscribed: they have one difference only — presence/absence of root reduplication. The form *duduhé/ duduhré* doesn't occur in the RV without an object; the same beings as in the present middle are displayed as object.

(1) "Milk" : *prá me vivikván avidan maniuṣám dhenúm ... sadyáç cid yá dudahé bhúri dhāsés* (III, 57, 1) 'Vivikvan has found to me one wise cow, which gave in the same day much milk'; (2) "rain" (= milk of heaven): *vṛsā vṛ́ṣṇe duduhe dóhasā diváḥ páyānsi yahvó áditer ádābhyaḥ* (X, 11, 1) 'man-rain for a man-rain gives the milk from heaven, with moistures, invulnerable son of Aditi' (the first noun of object, *dóhasā*, stands in the instrumental, the second one *páyānsi* in the the accusative); cf. *trír asmai saptá dhenávo duduhré satyám āśíram pūrvyé vyòmani* (IX, 70, 1) 'thrice seven cows gave true milk for him in the highest heaven'; (3) "honey, hop, drunkenness": *mádhu sváadma duduhe jényā gaúḥ* (III, 31, 11) 'the noble cow is dripping with the sweet

honey'; (4) the milking and milk is compared metaphorically with speech: (*vāc*) *cátasras ū́rjan duduhe páyāṁsi kvà svid asyāḥ paramá jigāma* (VIII, 100, 10) '(the speech) poured its mightiest streams when we came to it the first time'. This passage treats the outer appearance of the inner state, which is decisive for the existence of being. Beneficiaries of the form *duduhé/duduhré* are the gods: *trī́ni sárāṁsi pŕ́snayo duduhré vajríṇə mádhu* (VIII, 7, 10) 'the mottled, spotted (cows) gave to the owner of lighting (to Indra) three streams of *madhu*'; *índrāya gā́va āśíram duduhré vajríṇə mádhu/yát sīm upahvaré vidát* (VIII, 69, 6) 'the cows gave to Indra, owner of the lighting, the flowing honey, which he has found in a cave'.

As the present, the perfect *duduhé* is connected with the object "shine": *mádhvo rásam sugábhastir giriṣṭhám cániścadad duduhé śukrám aṁśúḥ* (V, 43, 4) 'the grass with excellent hands gave the shining, joyful moisture of the drunkeness-honey'; *áspandamā́no acarad vayodhā́ vṛṣā́ śukrám duduhé pŕ́snir ū́dhaḥ* (IV, 3, 10) 'the firm forceful man-rain has gone, the mottled belly drips with the shine'; cf. : *dohā́se pīpā́ye sakŕ́ś chukrá duduhe pŕ́snir ū́dhaḥ* (VI, 66, 1) 'the mottled belly gave the shine for milking and drinking', i.e. "shine" is analogous to the "shining drink". The importance for the universe is that beings exist as a result of the milking: *tát sú vāṃ mitrā́varuṇā mahitvám īrmā́ tasthúṣīr áhabhir duduhre* (V, 62, 2) 'thus the steady (cows) have made for all days the force for you, O Mitra and Varuṇa' (in Grassman's translation "sie haben ausgebeutet").

The forms of non-standard middle and of middle perfect show very well the meaning and function of this verbal form, which is characterized by the zero grade inflection and stressed vocalic ending of the base. The forms *duhé/duhré, duduhé/duduhré* mean the inner state (or process indicating this state), existing without active foreign influence, and representing its material and immaterial results. All these results are important for nature and the universe. The state of milking (i.e. also raining, legal institutions and so forth) is closely bound up with the god, heaven, ritual institutions. All depends on the original semantics of the root *duh-* (see below). Let us compare the non-standard middle with the standard middle and with the active.

The standard middle represents the same realm as the non-standard. Its objects are honey, Soma, singing, and also the cow: *náro yátra duhaté kā́myam mádhv āghoṣáyanto abhíto*

mithrastúraḥ (X, 76, 6) 'then men make (milks) for themselves the honey of love, causing the song of praise to sound'; *kuvíd vṛṣṇayántibhih purāṇó gárbham ādádhad/yāḥ, śukrám duhaté páyaḥ* (IX, 19, 5) 'They are hastening to Mitra, when the Upper (god) gave them a belly, they are milking for themselves a brilliant drinking'. The process of milking, which is connected with the creation of Soma, is completely described: *tám tvā devébhyo mádhumattamam nárah ... duhaté daśa kṣípaḥ* (IX, 80, 4) 'men with gods have milked him (Soma), sweetest, with ten fingers'. The milking is also connected with creating: "milking Soma", i.e. "creating Soma"; analogically "milking wave", i.e. "creating wave": (*saptá vániḥ) mádhvas ūrmím duhate* (VIII, 59, 3) '(seven singers) are milking the honey wave'; also with raining: *diváḥ pīyúṣam duhate* (IX, 85, 9) 'they are milking the drink from the sky'. In all these examples, the object is the result of the action. The object "cow" occurs in X, 107, 4: *té abhí cakṣate havíḥ/yé pṛṇánti prá cá yáchanti saṃgamé té dakṣinām duhate* 'they are looking at prayer-oil, which pours it, (which) runs(on the horse)with bits, (which) milks (for themselves) the right (good) cow'.

The middle may be compared with the active. The athematic active is attested once only, in IV, 19, 7: *prágrúvo nabhanvò ná vákvā dhvasrá apinvad yuvatír ṛtajñāḥ/dhánvāny ájrāṅ ápṛnak tṛṣānāṅ ádhog índra staryò dáṃsupatnīh* 'Rta-knowing Indra drank (impregnated) unmarried young maidens as the sparkling springs, he caused dried fields to be fruitful, he milked barren (cows), (which have expected) the good possessor'. It appears that in this passage Indra is treated as a cultural hero, who makes all the universe creative and fecund. The milking is a very important function of Indra. The active thematic form seen in I, 164, 26: *úpa hvaye sudúghām dhenúm etám suhásto godhúk dohat* 'I sing(glorify) the cow-milker with the good hands (who) milks the good-milking cow'. The verbal root *duh* forms a *figura etymologica* here. It is very important that the subject of this sentence *go-dhúg* is the athematic verb-noun. In (Krasukhin 1989) it was suggested, that these nouns are descendants from an archaic Indo-European one-member sentence, which contained in one word the concept of subject, action, object, results of action (they could have been similar to the one-member sentences in contemporary languages, cf. English *Rain!; Fire!*). In the attested languages, such a sentence could be represented as the *figura etymologica*. One can see such

an example in the above-cited Vedic context. The connection of *go-dhúg* with *sudúghām* occurs twice in the RV; that is a good argument for the above-mentioned assumption about the *figura etymologica,* cf.: *tám tvā vayám sudúghām iva godúghe juhūmási* (I, 4, 1) 'We are pouring the good-milked for you, O cow-milker(Indra)'; *surūplakṛtnúm ūtáye sudúgham godúghe juhūmási dyávi-dyavi* (VIII, 52, 4)' We pour every day the good-milked to the cow-milker, for his joy!'. So for Indra remains his function—cow-milker, and the prayer to Indra contains the pouring of the milk.

Thus, we have the sequence: Cow - Honey (drinking) - Rain (fecundator) - Soma - Heaven - Law - Truth - Prayer - Sacrifice. Verbs of the root *duh-* occur in such situations. The difference between *dógdhi* (*dohat*), *duhaté* and *duhé/duhré* is evident: the first form means the performing by subject action (and subject has control), the second one—the performing of the action by the subject for itself, the last one—non-action, but the inner state of the subject, its potence, or process, which is performed in or with the subject, but without the control of the subject. Gonda (1975) thinks that is the oldest function of the middle inflection; I suggest that it is basically the function of the non-dental middle.

After reviewing several verbs of the root *duh-* one can answer the question: why does the verb "milk" preserve the most archaic forms and structure? First and foremost, the prevailing meaning of the verb in the RV is: 'give milk, drinking, Soma, drip with the life's force'. But the final solution of this problem may be found after establishing the etymology. The Proto-Indo-European **dheugh-* 'berühren; drucken, ausdrucken; melken, reichlich spenden' (Pokorny 1959, 1: s. v) is attested in many languages. From a formal point of view, Hittite *duggari* (*duqqari, tuqqari*) is the nearest to the Ved. *duhe: duggari < *dhugh-o-r-i; duhe < *dhugh-e-i.* As was said above, *-i* is the secondary emphatic particle; the secondary character of Hitt. *-ri* is well-known, cf. doublets *esari/esa* 'seat', *neiari/neia* 'leads'. Thus both forms have the same prototype: **dhughe/o-* (*-r, -i*). But the meaning of Hittite *duggari* differs from the Vedic one: "sichtbar sein, gesehen werden, von Wichtigkeit sein" (Friedrich 1952: s.v.).

The Hittite data was exactly compiled by Erich Neu (1968:170-175), and I'll cite his translation. 1. The verb *duggari* may be without subject: *ma-an I-NA* UD II ᴷᴬᴹ. *na-as-ma*

UD.III.[KAM] *na-aš-ma* [U]D-IV.[KAM] *i-a-an-zi U-UL du-ug-ga-ri* (KUB XVII 28 III 23 f) 'ob sie (es) am zweiten Tage, oder am dritten Tage, oder am vierten Tage tun, ist nicht vom Wichtigkeit'; M[U.[KAM]]-*li ma-an* I ME *ma-an* 50 UDU *pieskimi* [*U-UL*] *kuitki tuqqari* (Gelübde an Leluani, I, 9) 'Ob ich 1 hundert oder ob ich 50 Schafe gebe, spielt keine Rolle'. To say exactly, in the last context there is a subject—the neuter indefinite pronoun *kuitki,* one can suggest that these sentences are a transition from subject to the purely subjectless clauses. Now one sentence without any subject: UDU.ŠIR.[HI.A]-*ma ḫargeš man dankuuaeš U-UL duqqari* (KUB IX 32 Vs. 67) 'Ob die Schafbocke schwarz oder weiss sind, spielt keine Rolle'. It is important that the grammatical agreement is absent between plural UDU.ŠIR.[HI.A] and singular *duggari.* The tendency to this discordance is an important feature of stative verbs (for some examples, see below).

Other occurrences have a noun subject: *palzaḫḫaš-ma gankuuar U-UL duggari* (KBo IV 1 Rs. 11) 'das Gewicht des Scheckels ist nicht von Wichtigkeit'; *meḫur U-UL duqqari* (BO 2393 Vs I, 4) 'der Zeitunkt ist nicht von Wichtigkeit'; positive utterance - *ANA* **KUR.**[URU] *Hatti ma-kan šaklaiš daqqari* (Huqq. -Vertag + KBo V, TTT 28) 'fur das Land Hatti ist eine Vorschrift von Wichtigkeit'.

2. The verbs which mean 'be seen': *ammel-ašši aššul tuqqat* (KBo IV 2 Vs 17 f) 'und mein Wohlwollen war für ihn gesehen'. But what is: "the good will is seen"? It may be said about an important feeling; thus there it means "be seen" and "be important" which are connected. The context from KUB XXIII 72 II 15 is interesting: *kuiš-ša ešzi-ma šakuuat-*[6] *kan duqqari* 'und wer aber da ist, und mit Augen gesehen?' This sentence seems to be passive: instrumental noun *šakuuat* 'with the eyes' + passive verb. But the connection of "eyes" with "be seen" may be understood as "it is important, i.e. noticeable, visible for eyes". This verb expresses the inner feeling in KUB XXIX 1 II 8 ff: *nu* LU. GAL-*uuaš* MU. KAM. [HI.A]-*uš malkiianzi uittanna kutriešmit kappuuar šameit U-UL duqqari* 'Und des Königs Jahre spinnen sie; und die Jahre kürze und ihre Zerlegung werden nicht gesehen'. And if the shortness (*kutriš*) and number (*kappuuar*) are not visible for actors, i.e. they are unimportant. In KBU XXIX 7+ Rs 53 ff, however, the meaning 'be seen, visible' is evident: *kinun maḫḫan* [GIŠ.] MÁ ID-*aš para piedaš urkieš* EGIR-*an U-UL duqqari* ... 'wie dieses Schiff der Fluss hinausgetragen hat,

und hinter ihm keine Spur mehr sichtbar ist.' Thus we can summarize: the verbal form *duqqari/duggari* means 'be important; be important for someone; be seen, be visible; be enough'. According to Vedic *duhe*,[1] they don't mean the action performed by the subject, but some station, or disposition of it. Besides, Jasanoff thinks that the Gothic *daug* and Old Icelandic *dugi* represent the old middle present, and Proto-Germanic *munaiþ* (cf. Eng. *mean*, Germ. *meinen*) is descendant of the middle perfect *(me)mn-o (Greek μέμονα 'think, remember', μέμαα 'be furious', Lat. *verbum defectivum memini* 'remember', Hitt. *memai* 'says'), denoting a process which is, naturally, not completely controlled by a subject.

In the Germanic languages the root *dheugh-* is attested, first of all, in the Gothic preterit-present *daug* 'enough, useful (two times: 1 C 10. 23 translates Greek σύμφερει, 2 T 2. 14 - χρήσιμον). J. Jasanoff has compared the Gothic verb with cognate OIce. *duga* 'to help, aid' (*ok vill eigi duga henni* 'and will not support her'): 3 sg. pres *dugi*, pret. *dugdi*. Jasanoff has proposed the Gothic infinitive *dugan and suggested, that the Gothic verb is a descendent from the III weak Germanic class, as seen in the Icelandic parallel. The Proto-Germanic *dugan had a 3 sg. *dugaiþ with secondary -þ. The form *dugai < *dhughoi may be immediately compared with Vedic *duhe* (Jasanoff 1978:56-75). This very interesting and attractive hypothesis needs, I think, some comments. First, Jasanoff supposes, that the timbre [o] of the final root vowel characterized middle voice, and *e-*, the active voice, (cf. in Hittite: *e-*timbre in thematic active *mi-*verbs, e.g. *iiezi* 'he makes' vs. *o-*timbre in passive *ḫi-*verbs, as *duggari*). But the Lithuanian conjugation contradicts this assumption: Lithuanian standard active thematic verbs have as ending in 3 pers. *-a* < *o (*dìrba* 'he works', *gýva* 'he lives' etc.). This inflection is a descendant from the same type (cf. Ivanov 1981:ch. 1; Erhart 1984) as the form *dhughé, but in Lithuanian it is a marker of active and stative verbs, without any difference. On the other hand, thematic aorists in Greek (with active or with stative meaning) have an *e-*timbre of the thematic vowel (except 1 sg. and 3 pl.). Probably

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[1]Vedic *duh-* and Hittite *dug(g)* have a difference: Hittite geminate consonants are descendant from PIE voiceless. i.e., *dugg-* < I.E. *d(h)uk-. Some scholars object to the comparison of *duggari* and *duhe* (cf. several meanings in, eg. Tischler 1994: s.v. One can assume, however, that there were two variants *dheugh/dheuk;* cf. list of such alternations in Hirt 1921:65-8.

the marker of the stative-middle was not the timbre of the vowel, but the presence of it (in contrast to the active athematic conjugation). Jasanoff considers the middle perfect as a "marginal present". It is a very important comparison, but it needs to be noted that Goth. *daug* represents the zero grade of the root vocalism. There is the very important idea of F. Bader (1969), who argues for two principal types of Proto-Indo-European perfect: the one with the *o*-grade (type Greek Ϝοῖδα), and the other with reduplication and zero grade (type Greek μέμαα, γέγαα). Both types of perfect were barytone, but they have affiliations with the Proto-Indo-European stative form, as was shown by Kuryłowicz (Kuryłowicz 1977:50-64). Goth. *daug*, naturally, corresponds to the first type, and Proto-Germ. *munan* - to the old stative; probably the zero grade of the root can be explained by the reduplication, which was lost later by analogy.

And if this all is true, we may say that Germanic has preserved traces of a very archaic state of Proto-Indo-European: the formation of the perfect on the base of the old stative. And the meaning of Germanic descendants (cf. also German *taugen*—from the form with the *o*-grade, *tüchtig*—from the zero grade) corresponds to Hittite very well: "be for importance" > "be for helping" (Goth., OI) > "be fit"(Germ.).

In Greek, this root has formed two different verbal bases. The one is τεύχω 'build, create' (this base was contaminated with PIE *tuk- 'break, chop.' The Homeric reduplicated aorist τετύκοντο is produced from this root; the non-aspiration of ἔτευξα instead of *εθευκσα may be explained by the influence of *tuk; cf. also the variation τύχος ~ τύκος 'instrument for working stone, mason's hammer'). The other variant is thematic aorist ἔτυχον 'it happened,' present τυγχάνω (with nasalisation). The derivative verbs as ἀποθύσκειν ἀποτυγχάνιεν, ἐνθύσκει ἐντυγχάνει; συνθύσσει (< *-θύχ–σκ–σει)· συναντήσει; ἀποθύσσει ἀποπνεύσει have also origins from this root. The latest is important: it permits reconstructing the original meaning of the roots *θυχ- in Proto-Greek as 'life, life's force'. This meaning is derived in the full-grade variant in the meanings "create" > "build" (with the influence of *tuk), in the zero-grade variant — *"to live" > *"to exist" > "to happen, to meet". The idea of "force" occurs in Balto-Slavic, too. Cf. OCS *ne-dougŭ* "illness'(< 'impotence'), with negative prefix; Russ. *diužyi* 'powerful', Ukr. *duže* 'much'; also Lith. *daũg* 'much',

daugéti 'grown'.

We can summarize: PIE *dheúgh - Old Indic "milk"; Hitt "be of importance"; Gmc "be enough, useful, fit", Greek "build" or "happen" (with traces of the meaning "live"), Balto-Slavic "be strong, great, powerful". The several variants of the root may be represented in the following table:

> **dheúgh-t(i)* "to milk" (OInd. *dógdhi*)
> **dhughé-(to)* "to have force, to act, to work" (Lat. *fungitur*)
> *dhughé "to be milking, to drip, to have force (OInd. *duhé*); "be of importance"(Hitt. *duggari*)
> *dudhughé "idem" (OInd. *duduhe*)
> *dhugh-to "to milk for oneself" (OInd. *duhaté* < *dhugh-ntoi)
> **dhough#* "force, growth" (Lith *daũg*, OCS *-dougŭ*, see above)
> **dhough(e)* "to fit" (Goth *daug*, NHG *taugen*)
> *dhedheughe "is created" (Greek τετευχώς 'created');
> *dhughet "has happened" (Greek ἔτυχον)
> *dhugheh "the destiny, fortune, case" (Greek τυχή).

It is clear the meaning "to milk" is secondary in Old Indic. It does not correspond immediately with Greek τεύχω or German *taugen*. Probably, the meaning was changed first of all in the form of the non-standard middle (i.e. oxytone form with the stress on its ending): "be strong, have force" > "to milk (itself); drip; give (milk, Soma, rain, honey, Law)". Such a development is not amazing: one can remember the importance of Soma pressing in Vedic rituals, and the function of the cow—the holy animal of Indra in Vedic mythology. The cow, Soma, and also rain are fecund and creative beings who nourish all the world. The active verb is often a causative for the middle (e.g. *bodhati* 'make awake' *bodhate* 'to perceive, notice, consider'), and active *dhéugh-ti > *dógdhi* received a new meaning "to milk (a cow)".

Thus the analysis of forms as Vedic *duhé, dudahé* shows that they are forms with zero endings, and with the stressed vocalic ending of the stem. This ending in the archaic PIE period appeared in stressed position only, and the root vocalism became a zero grade (in roots with the structure CRC; in the CC roots there was a tendency to avoid the zero grade. According to R. Fulk (1986), the reduced step of early PIE was

developed into the full-grade before a consonant, and into a zero grade before a resonant, and the resonant received syllabicity). C. Watkins assumes (1969: 45), that such forms are the most archaic verbal forms; J. Kuryłowicz has defined them as non-inflective adjectives (1964:198; cf. 1977:65), Y. Stepanov calls them "disordinated adverbs-adjectives" (1989:45). The argumentations of these important assumptions were not adduced (the sole argument of Kuryłowicz is the same accent model in verbal *dhughé-i and the adjective *rucá* (*luké-) 'light'). But the Vedic data give some confirmation for this comparison: one can see that the verb *duhé/duhré* can mean the property of the subject without any reference to a concrete situation. It can be compared with the non-standard middle forms from other verbal roots. For the exact opposition of the standard and non-standard middle there is only the stem *duh-*. But other forms can show some interesting features. In the root *cit*, there is in the *Rgveda* neither a thematic standard middle *cetate* nor the athematic *citté;* the only attested middle form is *cité*. Cf: *cité...tád surādhasā rātíḥ...aśvinā/á yán naḥ sádane pṛthāū sámane párṣatho narā* (X, 143, 4) 'Your gift is seen (or: is evident, clear), O good-giving Aśvina, which you wish to bring to us in the bright living-place, prayer-place, meeting-place, you men'. The verb *cité* may be interpreted as modal-eventual: it is evident from Geldner's translation: "Zu merken ist eure Gunst, euer Wohlwillen, o Aśviner, dass Ihr, Männer, uns im breiten Opfersitz, im Wettstreit durchhelfen wollet". Thus the form *cité* means a certain state, real or virtual ("be seen, be evident") but not a performing action. The non-dental middle *śṛnve* (*śru-* 'hear', active present *śṛnóti*, root aorist *áśravam, áśrot*) can be passive or stative in certain contexts, cf. (1) *sáṃ ghóṣaḥ śṛnve 'vamaír amítrair* (III, 30, 16) 'the cry of nearest enemies is hearing (heard)'; (2) *ayáṃ śṛnve ádha jáyann utá ghnánn ayáṃ utá prá kṛnute yudhá gáḥ* (IV, 17, 10) "er ist dann bekannt als der Steigende und Schlagende, und er treibt durch Kampf die Rinde" (Geldner). Thus, the two above-cited sentences have one difference only from the syntactical point of view: the presence/absence of nouns of agent in the instrumental. But the noun of agent is not obligatory for the Indo-European medio-passive. As Kuryłowicz (1964:138) has shown, the passive with the auctorial case is much later than the agentless one. It is a stylistic variant of the active. Moreover, the verb "hear" does not mean the effective action, it isn't really active, because the

construction "is heard by someone" isn't really passive. The form *śṛṇve* denotes a certain state, or property of the subject ("be affected by ears"), and not an influence by a foreign subject. The co-occurrence of the non-dental middle *śṛṇve* and the dental one *kṛṇute* is instructive The latest form designates the active action performed by the subject for himself. The opposition of dental and non-dental forms is evident. And in some cases the opposition: standard middle vs. non-standard middle may be eliminated, and both forms have the same meaning, e.g. OI *dādhate* and *dadhé* in late Vedic formula *dádhate/ dadhé gárbhas* 'she conceives a foetus'.

2. Non-dental middles in other Indo-European languages

For the more exact argumentation of the existence of such formal and semantic features of this form one must review the cognate forms in the Indo-European languages. Non-dental middles are all thematic verbs (especially, in Greek and East Baltic) but this category was developed under the influence of several processes. And there is not a certain law in these languages: athematic verb = active verb, thematic verb = stative verb. Also, in Greek there is only one such pair: Homeric γέντο (< γέμ–το) "took, caught(for himself)" - γέμω "be full, abound" with circumstancial τίνοσ). The root *gem- "catch, press" is attested also in Lithuanian *gìmti* (pres. *gẽmia* 'bears', *gìmsta* 'is born'), Slav. *žĭmo, žẹti* 'press'.

The non-standard Vedic middle may be compared with the Anatolian stative and middle verb forms. The immediate comparison *duhé/ duggari, áduhat/ duggat* is very instructive, as it was shown above. The data of other roots are also interesting. Forms with the non-dental middle are regular as the forms of 3 sg. medio-passive in the *hi*-conjugation.

There are two verbs which have no active counterpart: *esari* 'seat' and *kisari* 'become'. There is a form without -*ri: esa;* it argues for the secondary character of the ending -*ri*. The form *esa* is a pure verbal stem with a vocalic ending. The 3 sg. preterit *esat, kisat* with the secondary -*t* corresponds immediately to Vedic *áśayat, ádahat.* The etymology of *esari* is clear: it is the root **es-* 'to be' with the stative inflection. It corresponds formally to the OI perfect *ása* 'he was', and semantically to the present *áste* 'he seats' (Greek ἧσται 'idem'). The inflection *-*e*, according to F. Bader (1978), was replaced by *-*to*; thus, Hittite preserves a more archaic form than Vedic and Greek. (The etymology of

kišari is less clear: either the sigmatic variant of **k̑ei-*, cf. *kittari* 'lies', Ved. *śaye*, and other above-mentioned post-Vedic, Greek and Avestan parallels; or it is cognate to PIE **ges-*: Lat. *gero* 'make, create'). The form *kišari* can become modal in context (as Ved. *duhe*): *man tukma u̯arriziu̯anzi U-UL kisari* (Mursili-Duppi-Tessup-Vertrag, II 19) 'and you don't receive any help (lit. : it is impossible to help you)'.

When the dental and non-dental middle occurs with the same verb, they have a similar meaning. But there is an important feature with forms in *-ari:* they function often as impersonal verbs. Haiim Rosén has compiled such a list (Rosén 1982:168).

A. Verbs in *-mi: šiiari* '(one) presses', *karuššiiari* '(one) is silent', *tuhšari* '(one) breaks out', *paršiiari* '(one) breaks, fractures', *tiiari* '(one) appears';

B. Verbs in *-ḫi: paḫšari* '(one) guards', *ḫalziiaḫḫari* '(one) calls', *lahuari* '(one) flows'. The active form *pahšai* and middle *pahšari* differ one from another by personality/impersonality only. Cf. also impersonal imperatives: *uu̯aru* 'let (them) see', *saknaru* 'idem'; also *pahšaru, tuhšaru, lahuaru*. But the Hittite data are more complicated. First of all, there are examples of verbs with inflection *-ari* and active meaning, governed by an explicit subject: *natsamaskan* [SAL].SU.GI *arha dai nušmaškan šuil arḫa tuḫšari išmaša* [II]SU [HI.A] EME [HI.A] SAL.SU.GI *duu̯arrai* (Ritual against family quarrel II 9) 'And the Old Woman turns them out, and carves their members, and breaks two hands and a tongue of dough'. This fact does not contradict the idea of H. Rosén as a whole, but requires some corrections. The really impersonal form in *-ri* is *halziiari* '(one) calls; is called'. Cf.: *halantuu̯a halziiari* (KUB XXXIX 4+ Rs 12) '(one) is calling in/to the *ḫ.*' (a non-interpretable Hurrian noun, meaning time of day); *mistuliia ḫ.* (KUB XXV 24 II 13) '(one) is calling to them.'; *INA* UDUN *ḫ.* (KUB 25 32+) '(one) is calling in the stove'. There is a variant without *-ri: halziia* with the same meaning. The adverb from the above-mentioned Hurrian root *halantuu-* stands by it in several locational cases: *halantuu̯a halziia* (I BoT II 15 V 4) '(one) is calling in h. (directive); *halantuui/halentuui ḫ.* (KBo IV 13 V 19/Bo 6 271 6f) '(one) is calling in/to h.' (dative-locative); *halentuu̯az ḫ.* (KBo II 15 V 5) '(one) is calling from *ḫ.*' (ablative). Thus, the impersonality may be expressed by the form without *-ri,* which represent a bare verbal stem with a vocalic ending.

It may be noted that the verb *tuhš-* with *-r-*inflection can form the agentless passive, as in the above-mentioned ritual against family quarrel: *tuhšaru apiel* UD-*az* EME ᴴᴵᴬ *tuhšaru apiel* UD-*az uddar hurtauš* 'Let tongues be broken that day; let words and oath be broken in that day!' (II 13 f). There is no agreement between the singular form *tuhšaru* and the plural nouns EMEᴴᴵᴬ, *uddar* and *hurtauš* (the last noun shows that all these forms are accusative plurals) since the imperative *tuhšaru* is agentless and subjectless, it means a process which is performed by an indefinite magic being).

In the text of the pact between Muršili and Kupanta-Kal there is a form *karuššiiari*, which is interpreted by Friedrich and Neu as 2 sg. medio-pass.: *nammanzakan* EGIR-*anda memiiani* [(*šeir l*)*e karuššiiari* (18 D 66) 'verhalte dich dann hinunter über die Sache nicht ruhig' (Friedrich 1952:s.v.; Neu 1968). But other forms of the 2 sg in *-ari* are unattested, since we can propose the translation: "And let such things not leave (anyone) in peace"; it means, that *karuššiiari* is an impersonal verb in the 3 sg here.

The only occurrence of the non-dental form *tiiari* (cf. *tiiami, -ši, -zi* 'stand, be found') is attested in KUB XXXI 127 I 40: *nuššan sarranziiaš utneaš katterrašša utneiaš humandaš tuelpat* ᴰUTU-*uuaš* <*lalukkimaš*> *tiiari* 'zu den oberen Ländern und zu allen unteren Ländern tritt eben dein, des Sonnengottes, Licht'. The active verb can agree with the being, which can or cannot control the state; the non-dental form *tuhšari* means the non-controlling process only. Thus the impersonality and non-controlling states and processes have non-dental verbs in Hittite.

There is now a form with the inflection *-r*, which means impersonality in Hittite: the 3 pl. preter. which often occurs without any subject. Cf. the context from the Hittite Laws: *karu* I MA.NA KU.BABBAR *peškir* (p. 7) 'earlier one gave one mina of silver' (or - 'one mina of silver was given'); *karu* 6 GIN KU.BABBAR *peškir* (p. 9) 'earlier one gave six shekels of silver' (or - six shekels of silver were given'). In such sentences there is an implicit general subject. In other words, the predicate has a correlation with a certain class and characterizes any member of it. Thus the subject terms would be superfluous in such a sentence. In the text of Muršili the impersonal predicate means otherwise: *nu* GUD *puhugarin nuuaššan* ᴰ UTU ˢᴵ-*an daiš nankan* INA KURᵁᴿᵁ *Kummani para nair*ᴰUTU-ˢᴵ-*ma* EGIR-*an hinkatta*

GUD *puḫugarimma kuedani* UD-*ti unneir* (Murs. I, 15-16) 'and they have adorned prayer-cows, and the Sun-god laid his hand, and they led (them) in the country Kumanni, and they adorned prayer-cows'. There is no indication as to the person making the action. Cf. now in the same text: *nu ITTI* GUD *puḫugarin memiiaš maḫḫan ISTU* GIŠ LI.U₅ *gulaššanza man QATAMA arnuir* (I, 90-91) 'and they send prayer-cows and words in the tablets (i.e. the written text with instructions) together'. In these utterances, the speaker pays attention to the action and the result of the action, but not to the subject. Such sentences resemble the Russian so-called "indefinite-personal" sentences without any subject, with 3 pl. inflection of the verbal predicate. The 'indefinite-personal" sentence is equivalent to the passive: *V lesu rub'at derev'ya* 'One fells trees in the wood' or: 'Trees in the wood are being felled'. In Russian such sentences often indicate a command: *S otcom tak ne razgovarivayut!* 'One may not (or in context: You may not) speak so with the father!'. Such a feature occurs in Hittite: I LU UDKAKTUR-*as ABUKA uaštaš zikmasa UL manga uastulaš ešta mantakkan* 'È ABIKA KUR.KA-*ia UL arḫa dair maḫḫan damedani kuedanikki pieir* (M-D-T-Vertr, I, 26-27) 'Now: Your father Mishuiluwas was a sinful man, you a man of sin. And because of it, the house of your father was not taken away (from you) and governed by another'. Here there is a presupposition: if someone commits a sin, the house must be taken away. In archaic votive formulas the actor is seldom remembered: they presuppose law and custom.

In one context there is a co-occurrence of the personal and impersonal 3 pl. preter.: *nuššan ANA Madduuatta kuit šeir zaḫḫir mankan ANA Madduuatta kuennir* (Mad. Vs 59) 'and they fought for Madduwatta and were killed for Madduuatta'. Here the form *kuennir* has without doubt the passive meaning. Thus the natural 3 pl. and impersonal-passive verb are expressed by the same form.

From a synchronic point of view, Hittite *paḫšari* and *kuennir* are members of several paradigms. But their inflections differ from one another only by the presence/absence of the formant -*i* (as the indicator of the present tense). Such a comparison suggests the existence of a proto-form with the inflection -*r* and passive-impersonal meaning. One can compare this form with some other examples of 3 pl. preterit (perfect) in some other Indo-European languages.

In RV (IV 2, 19) occurs the sentence *uṣasaḥ ... ávasran* 'the

dawns are burned'. This *figura etymologica* with plural inflections has a parallel in the sg. active formulas: *vásaya uṣasaḥ* 'burn the dawn' (imperative), *úcha uṣasaḥ* 'burn the dawns!' There is a construction with the inactive verb: *úṣas vyávasa* 'the dawn is burned'. The singularity is the only difference from the *úṣasaḥ ávasran*. But this difference is not of great importance: the subject of both sentences is semantically empty (Rosén 1982:186). It is the removable-restorable subject (cf. Stepanov 1989). Cf the personification of a natural phenomenon in Greek: Ζεὺς ὕει 'Zeus rains (= it rains)'. The comparison of Ζεὺς ὕει - *úṣas vyávasa* - *úṣasaḥ ávasran* allows us to reconstruct the impersonal one-member Vedic sentence *(á)vasá/*(á)vasrá < PIE *vesé/*vesró. Thus there are two different grammatical manners of expressing the same grammatical meaning: the bare verbal stem with the stressed ending (and zero-grade inflection) and the form with *-ré/*ró. This inflection is added to the bare stem, and pulls up the accent, because the root becomes unstressed with zero-grade of vocalism. This flection characterizes the 3 pl. of the preterit and perfect in many Indo-European languages: OInd. active *-ur* (*vidur*), middle *-re*, *-ire*, *-rire* (cf. Leumann 1952), *-ran* (in the plusquamperfect), Lat *-ere*, *-erunt*, Tochar *-r*. But in the Old Irish perfect it occurs in the singular: *ro-fitir* 'knew', (*imma*) *siaisair* 'obsedit, became possessor', *laithe ro-n-genair* 'le jour où il nagait, the day he swam', *fo-rodomair* 'he has suffered' (Dottin 1891:243). J. Wackernagel has shown, that OIr *-fitir* and OInd. *vidur* are identical (Wackernagel 1953 a); the difference in meaning he explains by the idea of the collectivum: the collective action may be treated as plural and as singular. For proving Wackernagel's assumption, let us remember the origins of inflection *-r*. There are many theories about it (cf. Watkins 1969:58; Georgiev 1975:40; Jasanoff 1977). The most convincing is the idea of Holger Pedersen: the inflection *-r* originates from a relative pronoun or particle (Pedersen 1913: 613). Y. Stepanov compared this inflection with the Latin prefix *re-*, and OIr. *ro-*,[2] and suggested, that it was a separable particle in "floating position" (it may stay at the beginning or ending of the word. The assumption of Pedersen and Stepanov is attractive, since the reflexive particles often mark impersonal

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[2][Most accounts believe that OIr. *ro*, W *ryrw* is cognate with Lat. *pro-;* Lat *re(d)* with a *din* compounds reflects **wṛt->* OIr. *fri(th)* W. *go(r)-*] Ed.

verbs and designate collective actions in Slavic and Baltic, cf. Russian *On vidit*, Lith. *Jis rõdo* 'he sees' - *Emu vidits'a, Jám rõdosi* '(something) seems to him'. On the other hand, the Latin passive can express impersonal states and collective actions. Cf. (a) *calet* '(somebody) makes heat' - *caletur* '(here) it is heat'; *Itur ad te, Pseudole* (Pl. Ps. 453) 'They are going to you, Pseudolus'. For other examples and detailed explanations see Hartmann 1955: 29-33; Pinkster 1991. The Latin 3 pl. can also indicate the impersonal: *dicunt* 'one says' (similar to *dicitur* in the impersonal function). To summarize: there is a connection between the stative, passive, intransitive and collective verbal meanings: The same form can express all these ideas.

Thus we can describe the origin and structure of the inflection *-re/ro, -or/er* in such manner;

1. The affix $*re/ro$ was originally indifferent to the number, it meant verbal reflexivity and/or stativity.

2. It has functioned simultaneously as an indicator of an impersonal verb (with zero, collective, or superfluous subject), when the utterance is focused onto the process of action (not onto the agent). Therefore it can coincide with the grammatical pattern of the 3 pl, which can indicate the set of agents and a collective agent.

3. As other verbal affixes with the sound structure CV, the affix $*-re/-ro$ dragged up the accent from the root; it caused the reduction of the root vocalism; the accentology of $*-re/-ro$ was similar to the one of the plural affixes (i.e. 1 pl $*-me$, 2 pl. $*-te/-the$, 3 pl. $*-ont$).

4. Partly because of the analogy of the active 3 pl. $*-ont$, partly because of the adding to the oxytone stressed stem, $*-re/-ro$ was changed to $*-er(o)$. It is the prototype of Hittite 3 sg. medio-passive and 3 pl. perfect.

5. The combination of thematic stem and the affix $-er(e)$

caused the vowel contraction: $*bhue- + -er(e) > *bhuēre >$ Lat. *fuēre*.

6. The affix $*-re/-ro$ becomes a member of perfect-stative paradigma. In many IE languages perfect became a preterit, therefore $*-re/-ro$ becomes an indicator of 3 pl. pret. In Old Indic, there is an accentological opposition between 3 pl. of active and middle perfect: $-ur (< *-rs)$ vs. $-re (< *-roi)$.

The forms of the non-dental middle occur also in Italic (Osco-Umbrian) and Celtic. These forms have an *r*-ending (but the exact procedure of reconstruction shows the possibility of

suggesting the existence of an *-r*-less form in Proto-Italic), and are impersonal. The examples from the Iguvian tablets are such:

ehesu poplu nosue ier (TI VIb, 55) 'let him going out from these people' [cf. Poultney 1959]. This verb is modal; its subject is indefinite and general. In the next sentence a new subject occurs, also indefinite, but individual: *sopir habe esme populo portatu ulo pue mersest* 'si quis *habe* in hoc populo, iustitiam ullam portato' (the interpretation of *habe* is difficult: its formal features are unclear, it may be an active or middle verb). The inflection *-r* is joined to the subjunctive stem in: *pir endendu/esonome ferar pufe pir.entelust.ece.fertu poe percam arsmatiam haliest* (VI b 50) 'let (him) bring fire; when the fire will be brought, where (he) will kindle the fire, let him bring the fire, which has a priest's crozier'. The object by *ferar* is omitted (*pir* is suggested). Poultney (1959) assumes that the subject of this verb is the periphrastic construction *pufe pir entelust* 'where (he) will kindle the fire'. Naturally the same subject occurs in the beginning: *pir endendu*. This subject of *ferar* is superfluous communicatively, because it coincides with the same *endendu*. But in the clause *pufe pir entelust* and so forth, there is a more precise definition of the place, i.e. a new information; therefore here, there is a personal verb.

The forms with the inflection *-r* can mark naturally subjectless verbs in Italic. Such verbs can become adverbs, which function as a modal particle. Cf. Oscan *loufir* in: *pis pocapi(.)t post(post)exac comono hafiest meddis(.) dat castrid loufir en eituas factud pons touto deivatuus tanginom deicans* (TB II 8) '(if) any king after this session will take somewhat from spoils or from money, let him deal with it according to the decision of commune (as commune have decided)'. Oscan *loufir* is semantically equal to Lat. *vel* 'or'; cf. the conversion of a verbal form into particles, as Lat *igitur* 'thus' (from *agitur), Greek ἄγε (from the imperative). The Greek imperative represents the bare thematic stem; in some Latin verb inflections *-tur* has replaced the non-dental one: Latin *itur* as the impersonal verb corresponds to Umbrian *ier*. Thus one can reconstruct the PIE non-dental form *age/*ager, which has the same semantic development, as Oscan *loufir* (< Common Italic *loufe-r < PIE *loubhe-er).

The form *herie* is of similar meaning in the Iguvian Tablets: *herie vinu/herie poni fetu* (VI b 19-20) 'let him make (sacrifice)

with the vine, or let him make (sacrifice) with the drinking';
este/ esono uinu heri poni fetu (VI a 56-7) 'let him make (sacrifice)
with the wine or drinking'. The form *herie* (from * *herier*) is a
non-dental medio-passive functioning as a modal particle. It is
cognate to Lat. *horior* (by Ennius), classical Lat. *hortor*
(frequentative). Such a frequentative with suffix *-t-* in a non-
dental form means in Umbrian 'one/it should, ought to' and
functions as a main clause: *esunu fuia herter sume/ustite
sententastaru urnasiaru* (TI IIIa 1-2) 'one should (see to it), that
the temple of VI month(?) with upper *ustite* will be'. The
interpretation has some difficulties, since the meaning of *ustite*
is unknown, but the form *herter* is clear: it is an impersonal
modal verb, on which the asyndetic clause depends: *esunu ...
fuia* '(let) the temple be'. Cf. also: *si herter* (V a 6) 'one should
be', *emantur herte* (V a 8) 'it should be, that they take'. The form
herter functions as a main clause in asyndeton; it means a certain
propositional attitude.

There is a verbal category in Osco-Umbrian, which
functions only as impersonal: the passive perfect with the suffix
-fi, which is unknown in other Italic languages. Its Indo-
European prototype is also unknown. Cf. *panta muta fratru
atieiñu mestru karu pure/ulu benurent ařferture eru peperkur-/ent
herifi etantu mutu ařferture siu* (V b 3-7) 'When the main part of
Atieidies brothers will come, they will demand much, let the
priest have (it), it should be, that he have so much'. The clause
herifi depends on *pepercurent* and represents a subjunctive in
opposition to the independent indicative *herter.*

The second Umbrian form *-fi - pihafi* does not have an
absolutely exact interpretation. It is cognate with Lat. *pius,*
Oscan dative *pihui* 'pio' (epithet of Iuppiter), Volscan *pihom*
'pium', and Marrucian *peae* 'piae' (dat. sg. fem.); the non-Italic
counterparts are unknown. The verb *pihafi* may probably be
interpreted as 'make sacrifice'; it governs the double ablative:
bue pihaclu pihafi (VI a 29; 38; 45) 'bove piaculo piatum sit';
sorsu persondru pihaclu pihafi (VIb 31) 'suina salta piaculo piatum
est'[3]

To the Umbrian verbs with *-fi* corresponds Oscan *sakrafir*

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[3]The Iguvian tablets yield: *eo iso astendu pusi pir cehefi dia* (VI a 20); Devoto has
translated *pehefi dia* as "bis procedat" (Devoto 1937, Vetter (1953) - "captum sit
facias", Pisani [1961] - "incohari videatur", and Poultney assumes, that *cehefi* is
not a finite verb, but a verbal noun *knd-ti (Lat. *candor, candeo*). The
interpretation of *cehefi* remains *sub iudice.*

(twice in similar formulas in two inscriptions): *sakriss sakrafir* (Vetter 86) 'let sacrifices be made' and *sakrid sakrafir* (Vetter 87) 'let (one) sacrifice be made'. The form *sakrafir* governs the ablative actant and forms a *figura etymologica*, as Umbrian *pihafi*. Therefore, forms with *-fi* are important common Oscan-Umbrian features. (But if verbs in *-fi(r)* are infinitives, they must be compared with Old Indic infinitives with the suffix *-dhyai.*

(The meaning and etymology of the third form - *cehefi* - are unclear. The unique context in TIg is excluded from the list of non-dental finite verbs).

One can see that non-dental medio-passive forms in Oscan-Umbrian form the stative, impersonal, modal verbs. In this category the main tendencies of the Indo-European non-dental middle are realized.

The Italic data may be compared with Celtic and Latin. In Old Irish there is the non-dental passive in verbs of the I conjugation: *ber(a)ir* 'is carried', *fedir* 'is referred', *dleger* 'is debted'. In the conjunct conjugation the personal markers are infixed between the prefix and the root:

Present		Perfect	
sg.	pl.	sg.	pl.
1. no-m'berar	1. no-n'berar	1. ro-m'bert	1. ro-n'bert
2. no-t'berar	2. no-t'berar	2. ro-t'bert	2. ro-b'bert
3. no-beir	3. no-bertar	3. ro-bert	3. ro-berta

Thus the Proto-Celtic form of present passive is **ber-e-r*, perfect - **ber-to* (Thurneynsen 1946: 546; cf. Hartmann 1955: 12-20; Schmidt 1963). The inflection of 3 pl. is reconstructed as a secondary form: *-tar* < **-nti-ar* for the present, *-ta* < **-nti-ta* for the perfect. Infixed pronouns represent oblique cases; *no-m-berar* < **nu-me(d)-bherer* 'et me fertur', *no-t'berar* < **nu-te(d)-bherer*, and so forth. The Old Irish passive represents stativity and probable intransitivity of non-dental verbs. On the other hand, the Celtic data argue well for the idea of J. Kuryłowicz about the character of Indo-European verbal forms without inflection, with stressed vocalic endings. Kuryłowicz (1964; 1977) assumes that they were verbal adjectives without agreement to the substantive; they were similar to adjectives with the suffix *-to* and replaced by these. The paradigm of the Celtic passive present

and perfect shows the connection between the forms *-e* and *-to*. The adjectival character of these forms is connected with intransitivity. The form '*bert* is an active perfect in Old Irish; the transformation of the old stative perfect into the new active preterit is a well-known process in several Indo-European languages (very detailed in Kuryłowicz 1977: 45-50).

In Latin there are two classes of impersonal verbs.

(1) Formal passive verbs, as the above-mentioned *itur*. With these verbs, the subject can be a) unknown, b) given in context, c) universal: a) *dicitur* in the meaning 'one says'; b) *ubi eo ventum est* (Caes. B. G. 1, 43, 4) 'when they have gone there'; c) *Sic itur ad astra* (Verg. Aen IX 641) 'So (men, people) are going to the stars'. (More complete exemples and explanations can be found in Pinkster 1991). The analogy of Umbr. *ier* = Lat. *itur* is evident, and one can summarize that inflection *-tur* has replaced earlier *-er/*-or*.

(2) There is a group of formal active verbs expressing the physical or emotional state: *piget, paenitet, taedet* 'is inconvenient, unpleasant to smb.', *pudet* 'it is a shame', *miseret* 'have pity', *licet, libet* (old *lubet*) 'is pleasant', *oportet* 'is of importance'. Moreover, verbs *dolere* 'be sad', *vereri* 'revere; be afraid', and *fallere* 'cheat, deceive' can function as impersonals. For the complete list of contexts see Rosén (1982a); I'll say briefly that these verbs allow several models of government: *misereo alicui rei/aliquam rem; me miseret aliqua res; me*/without *me pudet*. Some verbs can be isolated in the clause: *ut lubet* (Ter. HT 738) 'how (it) is pleasant'. This form is cognate to Oscan *loufir;* only the inflection differs. But the comparison of Hittite *eśari/eša*, *ḫalziiari/ḫalziia* shows the secondary character of *-r(i)*, which can be separable. On the other hand, Vedic *āśayat, áduhat* shows that the inflection *-t* in stative verbs is also secondary. We may compare *loufir/lubet* immediately and reconstruct common Italic **loufe#*. The *o*-grade is indicative of the perfect, which has its origin in the ancient oxytone stative (Kuryłowicz 1977, 65); the long stem ending *-e* is connected with the same form (Jasanoff 1978), that is the so-called generalization of stem. Thus this form is descendant from Indo-European **lubhe*. Also impersonal *oportet* represents such a perfect *op-vortet* < **uorte* (in opposition to the personal *vertit* with short thematic vowel) < **u̯r̥te*.

This procedure allows us to compare many impersonal verbs with the non-dental oxytone verbal forms. Greek *ὕει* 'it

rains' has the same root, as OI *sunóti* (< *su-néu-ti*) 'press, milk'. The Old Indic active form may be descended from the even older *sóti* < *séuti*, cf. *yáuti/yunakti* 'joins' (cf. Kuiper 1937). One can see the opposition: *séu-ti* 'press, make sap' (active personal performance) vs. *su-é* 'flow, trickle' < 'rain' (impersonal, non-controlled process, natural phenomenon).

Another example of barytone/oxytone opposition is the correlation between the noun "snow" and the verb "to snow". In Indo-European languages there is an athematic noun *snigʷh:* Lat. *nix, nivis,* Greek νίφα (acc. sg. from unattested *νίφ-ς). Simultaneously, the thematic verb *snigʷhe* is attested in such variants as: *snigʷhe* - OIr. *snigid* 'it rains, trickles', *sningʷhe* - Lat. *ninguit,* Lit. *sninga* 'it snows', *snigʷhie* - Welsh *nyfjo* 'it snows', OI *snehyate* 'be humid, wet'; *sneigʷhe* - Greek νειφει, Avest. *snaeza,* Goth. *sniwit* 'it snows'. K. Hoffmann (1975:252) has compared this root with OI *snehayat* 'destroy, annihilate' and *snihitir* 'annihilation, fail', and *snih* (TA IV 23). Hoffmann has translated it as "Niederschlage sein" . The original meaning of the root was, according to Hoffmann "klebrig sein, flüssen". Then the meaning was developed to 'flow (from heaven to earth', i.e. 'rain' or 'snow', on the other hand 'destroy' (cf. Latin *liquidus* - *liquidare).* And one can say: the athematic variant of root *snigʷh-s* has expressed a permanent state or an event, that has become a thing. Thematic ones *snigʷhe-* and other verbs listed above denote the process, or the change of some state in time. The idea of temporary change is the most important difference of the verb from the noun (Benveniste 1969: ch. 5). This state of affairs is the best argument for the important idea of C. Watkins, who has assumed that the primary thematic forms (as *gʷhené*) are the most archaic verbal forms. One can add that this form first of all has expressed change in time.

Last but not least, the Baltic impersonal verbs have interesting syntactical features. One can compare verbal and nominal impersonal sentences: *mán (galva) skáuda* 'I feel pain (in the head)' (verb with dative subject) - *mán šálta* 'I feel cold' (adverb with dative subject; such adverbs are traces of *adjectiva neutra* in Lithuanian: *mán (galva) skáuda, Mán šálta, šála).* Thus the verb *skáuda* and the adverb *šálta* have similar meaning (inner state of somebody), similar syntactic government (dative subject), and the same morphology (null-affix, vocalic ending of stem). Thus both verb and adverb represent the same

category: an archaic thematized Indo-European form, which had no difference between finite verb and verbal adjective. Such forms were reconstructed by Kuryłowicz as prototypes of thematic verbs and thematic adjectives, cf. about the similar features of thematic nouns (Krasukhin 1996). The Baltic data argues the connection between primary verbal adjectives with *-e* and derived with *-to: šálta* < *kol-to*, and in Lithuanian there is a verbal form with *-e/-o* from the same root: *sala* 'is cold'. We have seen many different forms: middles, perfects, impersonal verbs, adverbs. All these verbs are descending from the same prototype: a form, which has reflected a bare stem with the stressed vocalic ending *-e/-o*. When the phonetic conditions permit, the root vocalism received a zero grade because of its unstressed position. This form has developed then into stative verbs, and into verbal adjectives and adverbs.

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