Passive, anticausative and classification of verbs: The case of Vedic

Kulikov, L.I.; Kulikov L.I., Vater H.

Typology of Verbal Categories

Papers presented to Vladimir Nedjalkov on the occasion of his 70th birthday

Edited by
Leonid Kulikov and Heinz Vater

Sonderdruck aus LA 382

Max Niemeyer Verlag
Tübingen 1998

Die Deutsche Bibliothek – CIP-Einheitsaufnahme

Typology of verbal categories : papers presented to Vladimir Nedjalkov on the occasion of his 70th birthday / ed. by Leonid Kulikov and Heinz Vater. – Tübingen : Niemeyer, 1998
(Linguistische Arbeiten ; 382)

ISBN 3-484-30382-4 ISSN 0344-6727

Gedruckt auf alterungsbeständigem Papier.
Druck: Weihert-Druck GmbH, Darmstadt
Buchbinder: Industriebuchbinderei Hugo Nädele, Nehren

Passive, Anticausative and Classification of Verbs: The Case of Vedic*

Leonid Kulikov

1. Passive and anticausative: introductory remarks

This paper deals with some problems of distinguishing between passive and anticausative, two closely related verbal categories. By anticausative I mean the intransitive (non-causative) counterpart (1b) in verbal pairs like (1):

(1) a. John opens the door
b. The door opens

Although passive and anticausative share a number of features (both being, above all, valency decreasing categories) and use the same or similar morphological marking in many languages, their position within the system of verbal categories and their status in a linguistic description differ crucially.

Passive is a well-established and thoroughly investigated verbal category, which has been widely discussed in both typological literature and grammatical descriptions of individual languages; the relevant bibliography is vast, if not to say unsurveyable, and includes works written in the last century or even earlier, before the beginning of systematic typological investigations.

In contrast, the term 'anticausative' is less than 30 years old. It has been introduced by Nedjalkov and Sil'nickij (1969) in the collective monograph on causatives which belongs now to the classical specimens of the typological literature. Since the 70ies, this term has appeared in both descriptive studies (cf. Masica 1976, Babby 1983, Winford 1988) and typological works dealing with verbal categories, cf. esp. Comrie 1981: 161; Comrie 1985: 325-328; Siewierska 1984: 77-79; Miller 1993: 179-183. There are a few typological studies focusing on anticausatives, Moreno 1984, Moreno 1985 and Haspelmath 1987[1], the latter being, to my knowledge, the only monographic treatment of the problem and the most comprehensive bibliographical source of the relevant literature until the mid-80ies.

Thus far, however, studies on this category are still few in number. This position of an orphan among other verbal categories (such as passive, causative, reflexive, etc.) can be illustrated by the very fact that the term 'anticausative' is not widely accepted yet[2] and even using

---

* I would like to thank H. Vater, A. Lubotsky, V.A. Plungian, E.V. Rakhilina and A.Y. Aikhenvald for valuable comments on earlier drafts of this paper.

[1] Cf. also Haspelmath 1993.

[2] For other possible terms, like 'decausative', 'inchoative', 'middle', see Haspelmath 1987: 9-10; in the Indo-European scholarship we also find terms 'eventive' (cf. Gonda 1951) and, more recently, 'fientive'. It is worth mentioning that an important contribution to the description of non-passive intransitive verbs is made by

this term in a descriptive work generally requires comments and some kind of apologies. Symptomatically, the list of scholars who widely use this term, consists, almost exlusively, of those who can read Russian, so that this label remains till now, in a sense, "East-oriented" and usually means a good knowledge of the works of the Leningrad/St.Petersburg typological group, above all of most comprehensive typological studies on causatives by V.P. Nedjalkov and his colleagues.

2. Passive vs. anticausative: problems of distingushing

The unprivileged position of anticausative can be easily explained by some of its features. Here some properties of both categories under discussion should be recalled.

A canonical passivization entails promotion of the underlying direct object (which is usually a patient, or an undergoer, in semantic terms) to the subject position, whereas the underlying subject moves down the hierarchy of grammatical relations and either becomes an oblique or remains unexpressed in the passive clause:

(1) a. John opens the door
c. The door is opened [by John]

An anticausative derivation also entails advancement of the direct object, and this is the most important feature shared by passive and anticausative, which accounts for their similar morphological marking in many languages, such as Russian, Spanish, Swahili, etc. (cf. Comrie 1985: 328-330; Haspelmath 1987: 29-31). There is, however, a crucial semantic difference between these categories. Let me quote Comrie's (1985: 326) definition here:

> "Passive and anticausative differ in that, even where the former has no agentive phrase, the existence of some person or thing bringing about the situation is implied, whereas the anticausative is consistent with the situation coming about spontaneously."

Cf. also Haspelmath 1987: 6-7, Siewierska 1984: 78.

This semantic distinction implies the following syntactic feature of passive: constructing with an agentive nominal, usually in the instrumental (in languages with case-marking), is unambiguous evidence for the passive interpretation.

The opposite is not always true, however, so that this feature is, in a sense, a "one-way" criterion: the lack of an overtly expressed agentive nominal cannot serve as sufficient evidence for an anticausative interpretation (cf. Siewierska 1984: 78).

Moreover, it seems that in many cases the question whether the agentless intransitive should be treated as anticausative or passive is simply irrelevant for the speaker.

---

studies on unaccusatives (other terms are: 'ergative', 'inactive intransitive'); for the most exhaustive treatment of the problem, cf. Levin and Rapoport 1995. The notions 'anticausative' and 'unaccusative' overlap in many important ways but are not identical and, most importantly, belong to different frameworks.

Furthermore, this is not the only difficulty concerned with the "Instrumental criterion". In some languages, the instrumental case can cover non-agentive usages, being also employed for marking such semantic roles as Tool or Means, so that it is often no easy task to identify whether we have to do with an agentive instrumental or not, cf.:

(2) Thousands of people were killed by this earthquake

On the other hand, Agent can be expressed otherwise than in the instrumental, cf. in German:

(3) Verletzte wurde zwischen zwei Sanitätern zum Krankenwagen geleitet. [3]

The morphological criteria often do not help much either. As already mentioned, some languages use the same morphological marking for both passives and anticausatives. Others exhibit different markers for these two categories, without drawing a clear-cut distinction between passive and anticausative usages, however, so that we can only note a more or less strict tendency to use, for instance, marker A for anticausatives and marker P for passives, whereby "A-passives" and "P-anticausatives" are possible, too.[4] This is probably the case with Russian verbs in *-sja* generally employed as anticausatives and opposed to constructions with passive participles in *-n, -t*. As a rule, *-sja*-verbs cannot be constructed with an agentive instrumental, cf.:

(4) a. Palka byla slomana (Petrom)
stick:NOM be:PAST break:PASS.PRT (Peter:INS)
'The stick was broken (by Peter)'
b. Palka slomala-s'
stick:NOM break.PFV:PAST-ANTICAUS/PASS
'The stick broke.'
c. *Palka slomalas' Petrom

Nevertheless, *-sja*-passives (which usually look more artificial though) can also be formed, if the verb is put in the imperfective aspect,[5] cf.:

(5) Dom stroil-sja zaključennymi
house:NOM build:PAST-ANTICAUS/PASS prisoners:INS
'The house was built by the prisoners'

---

[3] For a discussion and possible interpretations of such cases, see Höhle 1978: 147-161.

[4] Cf. for instance, the statement made by the author of one of the most insightful and comprehensive typological studies on Asian languages: "Anticausative" is not the same as "passive", to be sure, being more akin to "middle", but certain forms in some languages partake of the nature of both, and **there is an area of overlap and uncertainty** [bold is mine - LK]" (Masica 1976: 60).

[5] As shown by Gerritsen (1988: 132-136, 163-168), this aspectual constraint is due to that only 'non-actual' readings are possible with *-sja*-passives.

Even in languages with a clear-cut distinction between passives and non-passive intransitives we come across some instances of an "unexpected" morphological marking, as in the following English example with the non-agentive instrumental nominal:

(6) John was killed by the Californian earthquake[6]

Interestingly, the literal Russian translation is almost unacceptable:

(7)	a. ??John	byl	ubit	Kalifornijskim	zemletrjaseniem
		be:PAST	kill:PASS.PRT	Californian:INS	earthquake:INS

In order to render (6) in Russian, we have to replace the instrumental with an adverbial phrase 'during the Californian earthquake' and to use another (non-passive) verb:

(7) b. John pogib pri Kalifornijskom zemletrjasenii

Note that the same sentence with the passive verbal form *byl ubit* instead of the non-derived intransitive *pogib* can only mean: 'John was killed by somebody (a criminal or whoever) during the earthquake'.

Of course I will make no attempt to elaborate a universal criterion for dealing with the passive/anticausative distinction. The aim of this paper is more limited: to draw attention to an important aspect of the problem, viz. to the interrelation between classification of verbs (predicates) and constraints on the passive/anticausative derivation.

There is no need to argue that some transitive verbs can be both passivized and anticausativized (decausativized) (cf. (1a-c)), while some other verbs (which can be labeled inherently transitive) only allow for passivization, cf.:

(8) The table is made by John

We hardly can figure out a situation when a thing (human artifact) is made by itself, without any external agent; correspondingly, this sentence has no anticausative or reflexive counterpart.

This means that the anticausative derivation has a more limited scope of applicability than the passivization. Incidentally, this may also be one of the reasons why anticausatives usually occupy a less privileged position within the system of verbal categories. Note that many languages use the same morphological marking for several intransitive derivations (anticausative, reflexive, potential passive, etc.), all of which are different from the canonical passive, so that in case when an anticausative interpretation is impossible for semantic reasons, the same form can be usurped by another category, such as potential passive ('The table is easy to make'), reflexive or something else.

---

[6] Passive marking in the non-passive usages, as exemplified by (6), has been noticed for a number of languages, e.g. for German by Höhle (1978: 139, fn.1), who treats such cases as idiomatic.

The question arises how to define the class of transitive verbs which can undergo anticausativization. An effective criterion for classification of verbs in accordance with whether or not they can be anticausativized would be a helpful tool for disambiguating some of the usages without the instrumental agent.

At first sight, the solution of the problem is simple and, as a matter of fact, can be deduced immediately from the definition of anticausatives (as opposed to passives) as verbs denoting spontaneous processes (cf. Comrie, op.cit.; Haspelmath 1987: 15). Thus, if an action is conceivable as coming about spontaneously, the corresponding intransitive verb can be treated as anticausative; otherwise only a passive interpretation is possible. Unfortunately, this criterion is rather vague and abstract, so that the limits of the class of verbs which can be anticausativized (hereafter, AC-class) remain unclear.

Some authors suggest extra features for defining the AC-class. Haspelmath (1993: 92ff.) formulates the most distinctive feature as "the absence of **agent-oriented meaning components**".[7] Haspelmath adduces a few minimal pairs like *tear* ~ *cut*: the former verb has an anticausative (inchoative in Haspelmath's terms) counterpart due to the absence of the agent-oriented meaning components, whereas the latter has the semantic component 'by means of a sharp instrument' and, in virtue of that, can only be passivized but not anticausativized. Likewise, *execute* is said to have agent-oriented semantic components, while *kill* does not.

First of all, I am afraid, the notion of agent-oriented semantic components is rather difficult to be accurately defined. As Song (1995: 213) in his review rightly points out, many of Haspelmath's examples of verbs without agent-oriented meaning elements are dubious: killing can be performed by means of some instrument, e.g. a shotgun, etc.

Furthermore, in my opinion, the explanatory force of this criterion is illusory, since this is but a reformulation of the feature of spontaneity. In fact, an action can be conceived of as spontaneous if and only if an agentive external force is unnecessary, which (almost) exactly corresponds to the absence of the agent-oriented meaning components.

A similar approach to distinguishing verbs which can be anticausativized from those which cannot has been developed by Levin and Rapoport (1994: 61-66; 1995: 102-106). The authors state that "the transitive causative verbs that detransitivize [= anticausativize - LK] are those in which the eventuality can come about spontaneously without the volitional intervention of an agent" (Levin and Rapoport 1994: 61 = 1995: 102). They also notice that the classification of verbs according to whether or not they describe an eventuality that can occur spontaneously overlaps with the classification according to whether or not they describe an externally caused eventuality (Levin and Rapoport 1995: 105).

Again, this is one more reformulation of the feature of spontaneity.

I am less optimistic about formulating a universal non-trivial criterion (i.e. a criterion which is not just one of the facets of spontaneity) for identifying the AC-class. Moreover, this class of verbs seems to be language-specific, so that the same transitive verb can be only passivized in

---

[7] This seems to be a generalization of the earlier formulation, as suggested by Haspelmath (1987: 15): "For a change in the undergoer to come about spontaneously, the change may not be effected with too specific means".

some language whereas the corresponding verb with (nearly) the same meaning in another language may have both passive and anticausative counterparts (often merged within the same form; cf. Russian *byl ubit* as opposed to English *was killed,* as exemplified by (6)); for a discussion on some subtleties of such kind, cf. Levin and Rapoport 1995: 98-101.

There is an approach, however, which may help to make a step further and to contribute to the solution of the problem. It might be advisable to locate the most important subclasses of the AC-class which belong to its core and have a less abstract semantic definition.

3. The case of Vedic

In what follows I will discuss a specific group of verbs in Vedic Sanskrit. It will be argued that this group can be interpreted in terms of a non-trivial semantic feature, which seems to me highly relevant for dealing with the AC-class. Most interesting is that this group can also be defined independently on formal grounds.

3.1. Passive and anticausative in Vedic

The Vedic verbal system displays a morphologically marked opposition between passives and non-passive intransitives. The system of present, which I am concerned with, is the most elaborated among other tense systems, as to the opposition of valency-changing categories. Several transitive verbs exhibit a tripartite opposition: transitive forms (with active endings 1SG *-mi*, 2SG *-si*, 3SG *-ti*, etc.) are opposed to both passives (built with the accented suffix *-yá-* and middle endings: 1SG *-e*, 2SG *-se*, 3SG *-te*, etc.) and middle forms which can be derived either from the same stem as active forms or from some other stem. Middle forms often have more than one meaning. These usually include anticausative, reflexive and "transitive-affective" ('do smth. for oneself'). Thus, although anticausatives are not always consistently distinguished from other non-passive intransitive categories, they are, at any rate, more or less consistently opposed to passives. A good illustration of such tripartite opposition is the verb *pū* : *punā́ti* 'purifies' (transitive) ~ pass. *pūyáte* 'is purified [by smb.]' ~ *pávate* 'becomes clean, purifies (oneself)'.

3.2. Vedic *-ya*-formations

3.2.1. Present formations with the suffix *-ya-* and fluctuating accentuation

Vedic present formations built with the suffix *-ya-* (hereafter, *-ya*-presents) can be subdivided into two main classes, depending on the accent placement. As mentioned earlier, *-ya*-presents with suffix accentuation are passives; they are opposed to *-ya*-presents with root accentuation (the so-called class IV within the Old Indian tradition), most of which are non-passive intransitives: *pádyate* 'falls', *rī́yate* 'flows', etc.

Any verbal root for which *-ya*-presents are attested has either only suffix-accented *-yá*-passives or only root-accented non-passive *-ya*-presents. This rule perfectly holds in Vedic

and is only rarely violated in late Vedic texts, where a few verbal roots can form both *-ya*-passives and *-ya*-presents with a non-passive meaning (*asyati* 'throws' ~ *asyate* 'is thrown', etc.).

There is, however, a small group of less than 20 verbs which is, at first sight, a counter-example to the rule above, viz. verbs for which both suffix-accented and root-accented forms occur: *mucyáte/múcyate* 'is released; becomes free'; *kṣīyáte/kṣíyate* 'perishes; is destroyed', etc. (hereafter labeled *-ya*-presents with fluctuating accentuation).

No regularity has been found in this accent fluctuation, and the only attempt to relate it to the passive/non-passive distinction made by Gonda (1951: 98-99) proved unsuccessful. In the Vedic scholarship such verbs are usually mentioned as counter-evidence against the above-formulated correlation between the place of stress and the passive/non-passive distinction.

Below I will argue that the accentual patterning of these verbs does not actually violate the rule.

On closer examination, it turns out that there is no semantic feature correlating with accent fluctuation in *-ya*-presents.[8] Forms differing in accentuation can be found in very similar contexts; let me give a few examples. The following two occurrences in the Taittirīya-Saṃhitā and Śatapatha-Brāhmaṇa describe the waning of the moon:

(9) amúm **apakṣíyamāṇam** ánv ápa kṣīyeta (TS 3.5.1.3-4)
'He would waste away as this **waning** [moon]'

(10) yá evā̀pūryáte 'rdhamāsáḥ sá devā́, yò **'pakṣīyáte** sá pitaráḥ (ŚB 2.1.3.1)
'That half-moon which increases [represents] the gods, that which **decreases** [represents] the fathers'

The two passages below are even more similar:

(11) yádā hí **pramíyaté** 'themā́m upāvasyáti (TS 2.6.9.6)
'... because when [the sacrificer] **dies** he has recourse to this [earth]'

(12) yó vaí **pramīyáte** 'gníṃ tásya śárīraṃ gácchati sómaṁ rásaḥ (MS 2.3.5:32.7-8)
'Verily, who **dies**, his body goes to Agni (= fire), [his] essence to Soma'

Cf. also the following two passages from ritual texts:

(13) yád ā́jyam **ucchíṣyate** téna samídho 'bhyájyā́dadhāti (TB 1.1.9.3)
'Whatever butter **is left**, [the priest] puts fuel, having anointed [it] with this [butter]'

---

[8] The only exception, mentioned by many grammars, is the verb *pac*: *pacyáte* is passive ('is cooked'), while *pácyate* is clear instance of an anticausative, 'ripens'.

(14) yád ā́jyam **ucchiṣyáte** téna raśanā́m abhyájyā́datte (ŚB 13.1.1.1)
'Having greased a rope with the butter which **is left** [after greasing dishes of cooked rice], [the priest] takes it'

Moreover, we even find parallel passages which differ only in the place of stress:

(15) ná yásya hanyáte sákhā ná **jī́yate** kádā caná (RV 10.152.1) =
ná yásya hanyáte sákhā ná **jīyáte** kádā caná (AV 1.20.4)
'... whose friend is not killed, nor ever **suffers loss**'

In this situation we have to take a closer look at accented verbal forms in all accentuated Vedic texts and to compare the number of accented occurrences. Once we look at the account (for details, cf. Kulikov (forthcoming)), we immediately observe that forms with accent on the root as opposed to forms with accent on the suffix are distributed in the texts as follows:

> In the Ṛgveda and Taittirīya-Saṃhitā, *-ya*-presents most often are root-accented, while in the Atharvaveda, Maitrāyaṇī Saṃhitā and Śatapatha-Brāhmaṇa, *-ya*-presents are mostly suffix-accented.

This rule is not valid for two cases only: namely, for *pac* 'cook; ripen' and *tap* 'heat, suffer', and holds for the other fifteen *-ya*-presents with fluctuating accentuation (for a complete list, see below). Exceptions are very few (no more than 10-12% of the total number of accented occurrences).

This means that for the *-ya*-presents with fluctuating accentuation (except *pac* and, perhaps, *tap*) it is useless to search for any semantic (functional) correlation with the place of stress.

3.2.2. A tentative semantic interpretation

Most surprising is that a great deal of these *-ya*-presents, defined in purely formal terms (fluctuating of the accent) exhibit a striking semantic affinity and share a number of independent features. From the semantic point of view, *´-yá*-presents can be subdivided into two major sub-classes. The first sub-class comprises verbs of destruction referring to breaking (especially sacrificial vessels), splitting, as well as to destruction in general:

(i) *chid* : *chidyate* 'is cut off, breaks',
dṝ : *dīryate* 'splits, breaks',
bhid : *bhidyate* 'splits, breaks',
śṝ : *śīryate* 'crushes, breaks, collapses'
kṣi : *kṣīyate* 'wastes, disappears',
mī : *mīyate* 'is damaged, perishes',
lup : *lupyate* 'tears, is omitted'

Intuitively, *´-yá*-presents of another sub-class, such as *mucyate* 'becomes free', *śīyate* 'falls', *śiṣyate* 'remains', can be said to belong to nearly the same semantic area, although their com-

mon semantic denominator is rather difficult to describe. One may argue that they all denote a process when an element ceases to be included in any system or structure (for instance, is lost from the system), i.e. a process which results in the destruction of a system. Thus, again, like in group (i), we have to do with some kind of destruction. For this group I propose a tentative label "verbs of **destructuring**". The following *-ya*-presents belong here:

(ii) *jīyate* 'suffers loss';
mucyate 'becomes free, is released' (i.e. 'ceases to be bound, included into a bound system');
śiṣyate 'is left over' (i.e. 'becomes remainder of a structure');
hīyate 'id.';
śīyate 'falls (out)' (i.e. 'ceases to be included into a structure through falling out of it');

Two more verbs require more detailed comments.

ricyate, when used without preverbs, has the meaning 'is emptied', thus denoting destruction of a structure consisting of a container and its content. This verb, however, occurs mostly with the preverbs *áti* and *prá* and then acquires the meaning 'surpasses, is redundant', that is 'goes beyond the scope of some structure', which suits the notion of destructuring still better.

The meaning of *ṛdhyate*, 'thrives, is successful' does not belong to the domain of destructuring. However, when used with the preverb *ví*, it acquires the meaning 'is deprived of sth., loses sth.', i.e. 'ceases to be connected with some (structural) elements', which also suggests destroying a structure.

In my opinion, it is possible to define a still more abstract semantic feature shared by both subgroups (i) (destruction) and (ii) (destructuring). Both destruction and losing from a structure (destructuring) are spontaneous processes which result in destroying some natural or artificial system or organism and, to say it in more general and abstract terms, in the **increase of entropy**.

> The concept of entropy was proposed in 1850 by R. Clausius, a German physicist, and is sometimes presented as the second law of thermodynamics. According to this law, entropy increases during irreversible processes such as the spontaneous mixing of hot and cold gases, the uncontrolled expansion of a gas into a vacuum, and the combustion of a fuel. Very soon the notion of entropy has been extrapolated to many other domains, in particular, to a number of mechanical phenomena, so that many spontaneous processes, such as destruction or simplification of a system, death of a living being, etc., are often referred to as entropy increasing processes.[9]
>
> Note that any event concerned with (spontaneous) falling down of an object leads to decrease of energy of this object and, hence, to decrease of total energy of the system consisting of this object and the source of gravitation (normally, the earth), which implies increase of entropy. Furthermore, the falling of an element out of a system simplifies this system, so that its total energy decreases while entropy increases, again.
>
> Finally, here belong a number of phenomena concerned with some natural chemical processes, such as burning of fuel, souring of milk, etc.

[9] For the notion of entropy and its developments, cf. e.g. Chambadal 1963.

All spontaneous processes of such kind are irreversible; hence, it has been said that the entropy of the universe is increasing. That is, more and more energy becomes unavailable for conversion into mechanical work, and because of this the universe is said to be "running down". According to the same law, everything in the universe is irrevocably moving in the direction of random chaos and waste.
This notion has not only a physical significance but has also been largely conceptualized within human culture and world view (cf. Rifkin 1989), which, eventually, means that the concept of entropy and entropy increase is relevant within a system of language meanings.

Of course, it would be inadequate to look for an exact correspondance to the strict physical notion of entropy (as well as many other concepts of modern physics, biology and other natural sciences) in a natural language. Nevertheless, entropy, as defined by physicists, seems to be a good generalization and formalisation of some concepts, such as destruction, decay, destructuring, which are relevant for natural languages and, thus, may be relevant for a linguistic description.

One more verb can be appended to the above-described group, *pṝ* 'fill'. Although it does not refer to any 'entropy increase' process, in compounds with the preverb *á* it becomes antonymous (or, to be more exact, reversive) to one of the 'entropy increase' verbs: *á-pṝ* 'wax' and *ápa-kṣi* 'wane' refer to opposite changes of the half-moon. Cf. examples (10) and (16), where both verbs co-occur in the same passage:

(16) yá evā́**pūryáte** tā́ṃ devā́ upā́yan, yò **'pakṣīyáte** tā́m ásurāḥ (ŚB 1.7.2.22)
'The gods entered upon the [half-moon] which **waxes**, the Asuras [upon] the one which **wanes**'

The co-occurrence in texts and semantic parallelism may be a sufficient reason for assimilating some formal properties of *pṝ* (in particular, its accentual behaviour) to those of *kṣi* and, eventually, for putting it into the 'entropy increase' class.

Two *-ya*-presents whose accentual behaviour clearly differs from that of the 'entropy increase' verbs, *pacyate* and *tapyate*, do not belong here semantically either, which, no doubt, is not accidental.

3.2.3. Paradigmatic similarity

There is one more remarkable feature shared by a great deal of the *-ya*-presents with fluctuating accentuation (except for *pacyate* and *tapyate*): they are opposed to transitive-causative presents with nasal affixes, viz. with the suffixes *-nā́-/-nī-*, *-nó-/-nu-* and with the infix *-ná-/-n-*:

ṛdh	:	*ṛṇáddhi* (RV+), *ṛdhnóti* (RV[1] +) 'makes thrive';
kṣi	:	*kṣiṇā́ti* (RV +), *kṣiṇóti* (AV +) 'destroys';
chid	:	*chinátti* (RV +) 'splits';
jī	:	*jinā́ti* (RV +) 'deprives of property';
dṝ	:	*-dṛṇā́ti* (AVP *-dṛṇa*, ŚB *-dṛṇīyā́t*) 'splits';
pṝ	:	*pṛṇā́ti* (RV +), *pṛṇáti* (RV +) 'fills';
bhid	:	*bhinátti* (RV +) 'splits';
mī	:	*minā́ti* (RV +) 'diminishes; violates';

ric	:	*riṇákti* (RV +) 'leaves';
lup	:	*lumpáti* (AV +) 'breaks, tears, omits';
śiṣ	:	*śināṣṭi* (Br. +), *śiṃṣati* (Br. +) 'leaves';
śṝ	:	*śṛṇā́ti* (RV +) 'breaks'.

The above-listed common features prove close affinity of the *-ya*-presents with fluctuating accentuation. I hypothesize that their similarity in accentual patterning is not accidental but results from their semantic affinity. Very often, the question whether death, destruction or ruin come about spontaneously or due to any external force (agent) cannot be answered, being merely irrelevant for the speaker / the author of the text. For instance, it makes probably no sense to try to identify usages exemplified by (15) as passive or anticausative. Most likely, it is just irrelevant for the author of the passage in question whether the main participant of the situation described in (15) suffers loss spontaneously (which would entail an anticausative interpretation) or is deprived of property due to the intervention of an agent, which would imply a passive reading. Assuming that the Ṛg-Veda, as the most ancient Vedic text, has the older placement of the accent, one may suppose that originally the *´-yá*-presents were non-passive (anticausative) class IV *´-ya*-presents and had root accentuation. Since these verbs can be considered in some contexts either as passives or as non-passive intransitives (anticausatives), and in virtue of the increasing productivity of the suffix-accented *-yá*-passives, verbs of the type *chídyate, kṣī́yate, múcyate*, etc. may have been reinterpreted in some post-Ṛgvedic dialects as passives, due to the following semantic developments: 'breaks' → 'is broken [by accident]' → 'is broken [by smb.]', 'becomes free' → 'is released', etc. These developments have led, eventually, to the accent replacement in certain Vedic texts. Thus, suffix accentuation of *´-yá*-presents in the Atharva-Veda, Maitrāyaṇī Saṃhitā and Śatapatha-Brāhmaṇa may represent an interesting isogloss shared by the corresponding Vedic dialects.

3.2.4. Some erroneous accentuations and their tentative explanation

Now, when the class of *-ya*-presents with fluctuating accentuation is well-defined, semantically, syntactically, paradigmatically and morphologically, and its linguistic reality is beyond any doubt, it would be interesting to take a look at some other *-ya*-presents under this new view-point.

Thus far I have been concerned only with the *-ya*-presents with middle inflexion, which are attested with both accentuations. The active *-ya*-presents can only be root-accented. Exceptions are very few in number and are generally treated as mere manuscript errors. Not counting some erroneous forms in late and corrupt texts, such as Taittirīya-Āraṇyaka, we find only two clear exceptions of such kind.

<1> *jṝ* 'waste away, grow old, decay'

This verb builds root-accented active *-ya*-presents with non-passive meaning, cf.:

(17) **jī́ryanti** ha vaí júhvato yájamānasyāgnáyaḥ (ŚB 11.7.1.1)
'For, while he is offering, the Sacrificer's fires **become worn out**'

The only suffix-accented form occurs in the Maitrāyaṇī Saṃhitā:

(18) sáṁ hí **jīryátaḥ** (MS 3.7.3:78.6)
'... because they both **grow old**'

The accent placement is exceptional, so that Mittwede (1986: 126) has conjectured $^{+}$*jī́ryataḥ*.

<2> *mrit* 'decay, crumble away, die'
This *-ya*-present is poorly attested (4 times in the Śatapatha-Brāhmaṇa); only forms with active endings occur. The only accented occurrence bears stress on the suffix, cf.:

(19) yáthāmapātrám udaká ā́sikte **vimrityéd** eváṁ haivá té vímrityeyuḥ (ŚB 12.1.3.23)
'They assuredly would crumble away, as a jar of unbaked clay **would crumble away**, if water were poured into it'

Of course, one might treat both of the above-discussed forms as merely erroneously accentuated and irregular. However, these errors may be not accidental, being due to a certain tendency. Both *jr̥̄* 'waste away, grow old, decay' and *mrit* 'decay, die' are typical representatives of the 'entropy increase' class. I hypothesize that the accentual patterning in these *-ya*-presents, albeit exceptional, results from their semantic affinity with middle *-ya*-presents with fluctuating accentuation. Note that both of the above-discussed exceptions are attested in the Maitrāyaṇī Saṃhitā and Śatapatha-Brāhmaṇa, that is in the texts which prefer suffix accentuation (cf. section 3.2.1). One may assume that the corresponding Vedic dialects have had a weak tendency to group some active *-ya*-presents referring to 'entropy increase' processes together with middle *-ya*-presents with fluctuating accentuation, in virtue of semantic affinity and notwithstanding the difference in the diathesis (active/middle). Eventually, this may have given rise to their abnormal accentuation, which appears sporadically though.

4. The relevance of the notion of entropy

4.1. Entropy in a linguistic description

Vedic *-ya*-presents with fluctuating accentuation represent a typologically interesting verbal class, since they belong to the semantic area ('entropy increase') which poses great difficulties for anyone concerned with the distinguishing passives from anticausatives.

On the other hand, this semantic feature is of special importance for locating the core of the AC-class of verbs. 'Entropy increase' seems to be one of the most relevant and non-trivial semantic sub-components of spontaneity, and thus can be used in order to identify anticausatives as opposed to passives.

It is interesting to note that the notion of entropy may also be relevant for the describing anticausatives in other languages. For instance, almost 2/3 of Gothic anticausatives in *-nan-*[10] quoted by Haspelmath (1987: 16-17) refer to 'entropy increase' processes (*fralusnan* 'get lost', *fraqistnan* 'perish', etc.). Haspelmath draws special attention to one of these verbs, *andbudnan* 'be unbound, get loose', the anticausative counterpart of the transitive verb *andbindan* 'bind', pointing out that only the prefixed verb *andbindan* 'bind' can be anticausativized, whereas the corresponding simplex *bindan* 'bind' cannot. Haspelmath attempts to account for this asymmetry in terms of the feature of "unspecificity" (in order a causative/anticausative alternation can be allowed, "the change may not be effected with too specific means"). It is rather difficult to argue, however, that binding is a more specific process that untying. In my opinion, this discrepancy may receive a simpler and more natural explanation in terms of entropy increase. Getting loose, unlike getting bound, is a process leading to the destruction of a system and to an increase of entropy (cf. section 3.2.2 (ii) on Vedic *muc*).

4.2. Entropy and other spontaneous processes

Of course, not all of the spontaneous processes entail entropy increase.[11] A number of natural processes which can come about spontaneously even imply decrease of entropy. Note, however, that the set of elementary processes of such kind is rather limited, mostly being due to some natural sources of energy, such as, above all, sun, fire, etc. In particular, these are processes concerned with heating ('heat', 'become dry', 'shine', 'boil'),[12] growing, etc. It is beyond any doubt that processes leading to increase of entropy occupy an important position among natural phenomena. The universe is running down, everything will be ruined sooner or later, so that most of the natural processes contribute to this total ruin - the conclusion is unavoidably pessimistic.[13] No wonder that the group of predicates referring to 'entropy increase' processes belongs to the core of the class of spontaneous predicates.

Yet, it would be probably premature to claim that the class of 'entropy increase' predicates is exactly the main core of the class of spontaneous predicates (= AC-class). For the reason of space, I only mention here one of the most interesting AC-features, first formulated by Otto Jespersen in his "English Grammar" (Jespersen 1927: 332-337; cf. also Smith 1978). Jespersen points out that many verbs referring to motion and/or change of state undergo causative alternation, i.e. can be employed both transitively and intransitively, and labels this important class of verbs *Move* and *Change*-class (*move, turn, boil, improve*, etc.). The 'entropy increase' and 'move and change' classes overlap a little (cf. *fall, perish*) but of course are not identical. There

---

[10] For the function of Gothic *-nan*-verbs and problems of distinguishing between anticausative and passive interpretations, see Jansen 1988.

[11] A sketch of semantic subclasses of spontaneous events can be found in Kemmer 1993: 142-147.

[12] Cf., incidentally, two Vedic *-ya*-presents with fluctuating accentuation which do not belong to the 'entropy increase' class, *pacyate* 'is cooked, ripens' and *tapyate* 'becomes hot, is heated'.

[13] Recently it has been suggested (Brooks and Wiley 1986) that biological evolution also entails entropy increase, although in quite a specific sense of the word.

is no need to argue that the structure of the AC-class is rather intricate and, probably, language-specific.

4.3. Entropy vs. destruction

It is worth emphasizing that not all of the processes concerned, in some ways, with destruction of things lead to increase of entropy. A destruction may pursue certain goal, be planned and brought about by an external agent and, eventually, lead to creation of a new object, instead of the destroyed one, or, in a sense, to a new order of things. Slicing vegetables in order to prepare a salad is not just a mere destruction of the ingredients; it gives rise to a new object. Likewise, slaying a sacrificial animal amounts to more than its death and is a part of the ritual, which should contribute to the right order of things, from the point of view of the sacrificer. The same is true, *mutatis mutandis*, for some specific (implying "agent-oriented semantic components", in Haspelmath's terms) kinds of killing, such as executing etc. This may account for that many processes of destruction are often treated as inherently transitive or, in other terms, as unmarked causatives (cf. Croft 1990: 61). Thus, entropy increase and destruction proper do not coincide, although they may overlap and share semantic components.

The relevance of such semantic features as 'entropy increase' may be different for different languages. The case of Vedic is of special interest, since here this feature seems to acquire a "privileged" position. As a result, the 'entropy increase' verbs share a number of features which belong to different layers of the language structure (accentual behaviour, paradigmatic properties). No doubt, similarity of these formations as observed throughout the semantics, morphology and paradigmatic properties, cannot be accidental. This means that the *-ya*-presents with fluctuating accentuation are not a random group but a linguistically well-established verbal class. Thus, 'entropy increase' becomes, in a sense, a "morphologically influential" feature, being the main parameter organizing the above-listed *-ya*-presents to a structural unity and influencing the properties of the corresponding verbs.[14]

A search for other semantic features, such as 'entropy increase', may be of particular importance for identifying the AC-class as well as for the description of the system of verbal classes on the whole.

Abbreviations

AV = Atharva-Veda, AVP = Atharva-Veda, Paippalāda recension, Br. = Brāhmaṇas, JB = Jaiminīya-Brāhmaṇa, MS = Maitrāyaṇī Saṃhitā, RV = Ṛg-Veda, ŚB = Śatapatha-Brāhmaṇa, TB = Taittirīya-Brāhmaṇa, TS = Taittirīya-Saṃhitā

---

[14] In particular, this feature may have been the main reason for building the secondary nasal presents *śināṣṭi, śiṃṣati* 'leaves' as the transitive counterpart of *śiṣyate* 'is left'.

References

Babby, L.H. (1983) The relation between causative and voice: Russian vs. Turkish, *Wiener Slawistischer Almanach* 11, 61-88.

Brooks, D.R., and E.O. Wiley (1986) *Evolution as entropy: Toward a unified theory of biology*. Chicago: Chicago University Press.

Chambadal, P. (1963) *Évolution et applications du concept d'éntropie*. Paris: Dunod.

Comrie, B. (1981) *Language universals and linguistic typology*. Oxford: Basil Blackwell.

– (1985) Causative verb-formation and other verb-deriving morphology. In: Th. Shopen (ed.) *Language typology and syntactic description*, Vol. 3: *Grammatical categories and the lexicon*, Cambridge: Cambridge University Press, 301-348.

Croft, W. (1990) Possible verbs and the structure of events. In: S.L. Tsohatzidis (ed.) *Meanings and prototypes: Studies in lingustic categorization*. London/New York: Routledge, 48-73.

Gerritsen, N. (1988) How passive is 'passive' *-sja*? In: A.A. Barentsen et al. (eds.) *Dutch studies in Russian linguistics*. Amsterdam: Rodopi, 97-179. (*Studies in Slavic and general linguistics*, 11).

Gonda, J. (1951) *Remarks on the Sanskrit passive*. Leiden: Brill.

Haspelmath, M. (1987) *Transitivity alternations of the anticausative type*. Köln: Institut für Sprachwissenschaft. (*Arbeitspapier* 5 (N.F.))

– (1993) More on the typology of inchoative/causative verb alternation. In: B. Comrie and M. Polinsky (eds.) *Causatives and transitivity*. Amsterdam/Philadelphia: Benjamins, 87-120.

Höhle, T.N. (1978) Lexikalistische Syntax: die Aktiv-Passiv-Relation und andere Infinitkonstruktionen im Deutschen. Tübingen: Niemeyer. (*Linguistische Arbeiten*, 67).

Jansen, O. (1988) Zur Funktion der gotischen *-nan*-Verben. In: J.O. Askedal et al. (eds.) *Gedenkschrift für Ingerid Dal*. Tübingen: Niemeyer, 54-62.

Jespersen, O. (1927) *A modern English grammar on historical principles*. Pt. III. *Syntax*. Second volume. Heidelberg: Carl Winter.

Kemmer, S. (1993) *The middle voice*. Amsterdam/Philadelphia: Benjamins. (*Typological studies in language*, 23).

Kulikov, L.I. (forthcoming) Vedic *-ya*-presents: semantics and the place of stress, *Akten der 10. Fachtagung der Indogermanischen Gesellschaft*. Innsbruck.

Levin, B., and M. Rapoport (1994) A preliminary analysis of causative verbs in English, *Lingua* 92, 35-77.

– (1995) *Unaccusativity: at the syntax-lexical semantics interface*. Cambridge, Mass.: MIT Press.

Masica, C.P. (1976) *Defining a linguistic area: South Asia*. Chicago: University of Chicago Press.

Miller, J. Gary (1993) *Complex verb formation*. Amsterdam/Philadelphia: Benjamins.

Mittwede, M. (1986) *Textkritische Bemerkungen zur Maitrāyaṇī Saṃhitā*. Stuttgart: Steiner. (*Alt- und Neu-Indische Studien*, 31).

Moreno Cabrera, J.C. (1984) La diatesis anticausativa. Ensayo de sintaxis general. *RSEL* 14 (1), 21-43.

– (1985) Anticausatives. A typological sketch, *Chicago Linguistic Society* 21 (2), 172-181.

Nedjalkov, V.P., and G.G. Sil'nickij (1969) Tipologija morfologičeskogo i leksičeskogo kauzativa. In: A.A. Xolodovič (ed.) *Tipologija kauzativnyx konstrukcij: Morfologičeskij kauzativ*. Leningrad: Nauka, 20-50.

Rifkin, J. (1989) *Entropy: into the greenhouse world*. New York etc.: Bantam books.

Siewierska, A. (1984) *The passive: A comparative linguistic analysis*. London: Croom Helm.

Smith, C.S. (1978) Jespersen's 'move and change' class and causative verbs in English. In: M.A. Jazayery et al. (eds.) *Linguistic and literary studies in honor of Archibald A. Hill*. Vol. II. *Descriptive linguistics*. The Hague etc.: Mouton, 101-109.

Song, J.J. (1995) Review of: B. Comrie, M. Polinsky (eds.): *Causatives and transitivity*. Amsterdam/Philadelphia: Benjamins, 1993, *Lingua* 97, 211-224.

Winford, D. (1988) Stativity and other aspects of the Creole passive, *Lingua* 76, 271-297.