

Middle Voice in Latin and the phenomenon of Split Intransitivity

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Summary

The aim of this paper is to draw a sketch of the verbal voice system in Latin and possibly to shed more light on some controversial points (in particular, the status of deponent verbs (DVs)), by means of a comparison between middle voice (MV) and Split Intransitivity.

The term “Split Intransitivity” originated among researchers in typological linguistics to indicate some inflectional patterns in active / stative languages (cf. Merlan 1985, Klaiman 1991); its meaning has been subsequently broadened to refer to splits in the intransitive verb class of some nominative / accusative languages, such as the existence of two subclasses of intransitive verbs with different morpho-syntactic behavior (exemplified by the selection of the perfective auxiliary, the use of their past participle in absolute constructions, facts of agreement and use of clitics). These phenomena are usually referred to with the term “Unaccusativity”, but “Split Intransitivity” is the term which prevails among semantically-oriented studies (such as, for instance, Van Valin 1990). A semantic approach will be pursued here, in order to capture similarities in the distribution of MV and in the behavior of unaccusatives (lexically unaccusative verbs) and anticausatives (ergatives). It will be argued that the same semantic features and structural needs which govern Split Intransitivity determine as well the lexical encoding of verbal voice in Latin.

Introduction

The principal aim in recent research on verbal voice, originating from the highly influential study by Benveniste (1950), has been to find a general semantic-functional explanation, which can account for the creation of diathetic oppositions within languages. This explanation is expected to address the interaction between voice and other verbal features, such as actionality (i.e. inherent semantic characterization) and aspect. In this respect, the study of the Latin verbal system can be very significant, especially if compared to its evolution in the Romance languages. The monumental work by P. Flobert (1975) offers both an incomparable amount of data and interesting challenges from the point of view of a theory of verbal voice. First, Flobert, basing his analysis on the increasing number of DVs up to Charlemagne, criticizes the traditional theory, which recognizes in DVs just a frozen Indoeuropean inheritance; secondly, he rejects the importance of the notion of middle to explain the existence of DVs and of particular uses of passive voice, and comes to doubt even the existence of an Indoeuropean MV.

Here, instead, it will be argued that, according to a semantic analysis of the most ancient DVs, a functional interpretation of Latin DVs and, more in general, of Latin verbal voice can be given only by focusing on the notion of MV. The domain of *-r* inflexion is characterized by an intrinsic, intimate functional coherence (i.e. coding of a *de-agentive* situation). Oppositional uses of *-r* voice (passive, impersonal, middle) display this function by defocusing the agent both syntactically and semantically. *Media tantum*, on the other hand, signal a non prototypical subject (inagentive, internal, *affected*), whose semantic role is conditioned by the verb meaning, which has to be analyzed in terms of *Aktionsart*. Verbal voice in its lexical use is, therefore, a means of marking in a special way verbs which describe a semantically-cognitively salient situation. This way, MV and Unaccusativity can be shown to be determined by the same semantic features.

The anticausative middle

This paper will focus, due to space reasons, on lexical middles, i.e. verbs which are invariantly provided with middle marks. Anyway, one remark about oppositional MV is necessary. As is well known, it is difficult to give a sharp definition of oppositional MV, which can take into account all the different uses. A standard definition is the following: the MV expresses a particular involvement of the subject, which is *affected* by the action expressed by the verb. In this respect, the middle domain shares some similarity with the reflexive, and this is the aspect which has been traditionally stressed.

Although reflexive-like uses of MV are widespread in active / middle languages, it seems that they are not the core uses of the category: rather, there is a particular use of middle as intransitivizer of transitive active verbs that deserves much greater attention. The transitive / intransitive alternation of the type “I break the glass” / “The glass breaks” is commonly expressed with the MV in ancient IE languages and, more generally, in every language with a MV, as typological research (cf. Klaiman 1991 and Kemmer 1993) shows. In this use MV displays its fundamental inagentive / deagentive value. This kind of alternation, where the object of the transitive form can become the subject of an intransitive one, is called anticausative or ergative.

The inagentive feature displayed by the anticausative construction is very likely to motivate better than reflexive semantics the connection between oppositional and lexical middle, and also the relationship between middle and passive. Pseudo-reflexive and benefactive meanings must be considered derived uses of MV, whereas the anticausative use results as the core one. The latter is very productive in Latin and proves the actual vitality of MV. Every use that Flobert describes as intrinsic passive is a true middle use:

TABLE 1:

grooming or body care		“mutatives”	
<i>lavor</i>	<i>armor</i>	<i>aboleor</i>	<i>manifestor</i>
<i>nitidor</i>	<i>cingor</i>	<i>consumor</i>	<i>ostendor</i>
<i>ornor</i>	<i>exuor</i>	<i>generor</i>	<i>aperior</i>
<i>pector</i>	<i>induor</i>	<i>corrumpor</i>	<i>augeor</i>
<i>rador</i>	<i>insternor</i>	<i>creor</i>	<i>mutor</i>
<i>tergeor</i>	<i>nudor</i>	<i>extinguor</i>	<i>coquor</i>
cognition and emotion		translational verbs	
<i>adflictor</i>	<i>firmor</i>	<i>agitor</i>	<i>curvor</i>
<i>agitor</i>	<i>furior</i>	<i>agor</i>	<i>explicor</i>
<i>comparor</i>	<i>iactor</i>	<i>cieor</i>	<i>surgor</i>
<i>contristor</i>	<i>maceror</i>	<i>emittor</i>	<i>tollor</i>
<i>crucior</i>	<i>memoror</i>	<i>mergor</i>	<i>torqueor</i>
<i>distrakor</i>	<i>mitigor</i>	<i>migror</i>	<i>adunor</i>

Predicates entering the anticausative alternation are generally *evolutives*: their main semantic feature is movement or change of state. The subject is inagentive or with a low degree of agentivity. The class of meanings expressed by anticausative middle and its relationship with passive on the one side, and reflexive on the other, can be described through a graduate scale of values based on the features: subject’s macrorole or protorole (a bundle of low agentivity theta-roles), subject’s

relative degree of agentivity and possibility of syntactical expression of an agent (cf. also Risselada 1987, that distinguishes between pseudo-passives and pseudo-reflexives):

TABLE 2:

	subject as <i>undergoer</i>	subject's degree of agentivity	possibility of expressing the agent syntactically
1. passive	+	-	+
2. pseudopassive anticausative	+	-	-
3. pseudoreflexive anticausative	+	+	-
4. reflexive	+	+	+

Lexical uses of middle voice

A problem which is even trickier than describing oppositional middles is to give a unified definition for the lexical uses of MV. Judging from the examples of intransitivizing function of oppositional middle, one could be tempted to describe MV just as a meaningless marker of syntactic intransitivity: but the intransitivity displayed by anticausatives is a special kind of intransitivity, it is not just valency reduction (as in *the child eats an apple / the child eats*). In the anticausative the only argument of the verb is the internal argument, not the external one, i.e. anticausatives express unaccusative intransitivity (see Levin & Rappaport Hovav 1995). Note that passive as well is syntactically an unaccusative construction. Is *-r* the mark of the same kind of intransitivity also in the case of DVs?

Extensive typological research has shown that active / middle systems always display the same basic features: an undeniable intransitive vocation, similar distribution of oppositional uses, uniform presence of two distinct classes of *activa tantum* and *media tantum*, tight parallels in the semantic classes of predicates involved, typical correlations with some actional and aspectual domains. Thus far, Kemmer (1993) is the reference study for these topics.

TABLE 3: Some active / middle languages:

Acooli (Nilo-Saharan)	Lushai (Sino-Tibetan)
Bahasa Indonesia (Austronesian)	Manam (Austronesian)
Changana (Niger-Congo)	Mohave (Hokan)
Djola (Niger-Congo)	Pangwa (Niger-Congo)
Fula (Niger-Congo)	Quechua (Amerindian)
Guugu Yimidhirr (Australian)	Shona (Niger-Congo)
Hungarian (Uralic)	Tarascan (Amerindian)
Kannada (Dravidian)	Turkish (Altaic)
Kanuri (Nilo-Saharan)	Twi (Niger-Congo)
Lingala (Niger-Congo)	

Typological studies on MV have shown greater attention to oppositional uses, though some prototypical predicate classes with a “middle” semantics have been recognized. These are, according to Kemmer (1993):

1. *verbs of grooming or body care* (to wash, to comb)
2. *verbs of nontranslational motion* (to turn, to twist, to bend)
3. *verbs of change in body posture* (to sit, to lie)
4. *self-benefactive middles* (to buy for yourself, to receive, to obtain)
5. *naturally reciprocal events* (to meet, to fight, to hug)

6. *verbs of translational motion* (to go, to come, to fly, to move) ; also *verbs of negative motion* (to stay)
7. *verba affectuum* i.e. *emotion middles* (to get angry, to be amazed, to be frightened, to wonder, to prey, to cheat) ; important group of middles expressing speech actions (especially when emotional)
8. *cognition middles* (to think, to examine, to remember)
9. *eventive middles, describing spontaneous events* (to change, to be born, to die, to fall, to break, to disappear, to bloom)
10. *perception middles* (to see, to hear, to touch)

One of the most interesting results of typological studies is that they have shown that a class of lexical middles is present in every active / middle system.

Note that this fact brings one to question the reconstruction for Indoeuropean of an original stage characterized by lexical distribution of voice (cf. Delbrück 1897; for a recent treatment of the subject, see Lazzeroni 1990). This hypothesis was meant to explain the existence, in ancient IE languages, of *activa tantum* and *media tantum*: accordingly, during an original stage of the language, all verbs received their invariable voice marks somehow lexically, depending on some semantic feature of the root. Probably, however, it is not necessary (nor correct) to figure out such a system without oppositional voice, because it seems that to have one-voice-verbs is a structural need of voice systems. An alternative model, which classifies roots, according to their thematic properties, in a tripartite system of transitive, unergative and unaccusative roots, as the one put forward in Benedetti (2002), is more plausible from a typological point of view.

If one-voice-verbs are not considered a rest of ancient systems but a structural need of every active/middle system, also DVs attested in later IE languages (such as Latin) must be given a structural-functional explanation. According to the following survey, this is possible, although it has to be acknowledged that there are many disturbing factors which render data not so perspicuous, and also that the deponent class is undergoing a deep change which is in act since the earlier stages of attested Latin, and which causes the *-r* flexion to lose its original function.

Latin deponents: chronological considerations and causes of de-functionalization

The number of DVs attested in Latin pre-classical texts (from the origin until Ennius' death, 169 B.C.) is, according to Flobert's data, 270. At the beginning of the Romance era (conventionally, end of the VIII century A.D.), the total number of DVs reaches 884. Of course, Latin speakers during Charlemagne's period did not have at their disposal all the 884 DVs. The number must be interpreted as the sum of DVs that one can find in a comprehensive lexicon of the Latin language. Synchronically, Flobert (1975: 511) estimates that the average consisted of 300 - 400 DVs in a speaker's mental vocabulary. Written texts that are closer to the spoken language normally display no more than 200 DVs.

As we see, DVs have been present during the whole history of the Latin language, and their number has considerably increased: 614 new DVs after the pre-classical period, and 586 verbs with variable deponent behavior. How to reconcile these numerical data with the common opinion that DVs would have been a disappearing IE inheritance since the most ancient stages in Latin?

Flobert's answer is that the common opinion about DVs has to be changed, in view of his results, which show a constant vitality of the deponent flexion.

Flobert's position is not tenable, for a number of reasons, but principally because, from a diachronic point of view, it is not important to see whether or not a lexical class resists or expands in a language, but *how* it expands. If the functional mechanisms that govern a lexical class change drastically, although maintaining the same formal means, it will have to be acknowledged that a different lexical class has been formed, along a pattern of impoverishment and subsequent functional re-orienting which is far from rare in natural languages (see Bertinetto 2000 for some theoretical considerations).

This is what happens with Latin DVs: the new formations and the fluctuations, together with the frequent osmosis between different poles of verbal voice (and especially with passive), are not the propulsive force of the class, but, on the contrary, the principal cause of the process of de-functionalization that involves the deponent flexion and leads to its subsequent slow, though compelled, death. The class, under the effect of analogical processes, loses its originally coherent motivation and becomes an heterogeneous group of verbs with a morphological mark which is on its way to disappear, being deprived of any particular sense. Other morpho-syntactic means become specialized, thereafter, in expressing unaccusative intransitivity: it will not be possible to discuss here important factors such as the Late Latin use of reflexive pronouns, the phenomenon of intransitivizations, the spread of the *-sco* suffix (for the latter, see Berrettoni 1971 and the thorough study by Haverling 2000).

Our analysis, being oriented toward recognizing a unitary motivation for the Latin deponent class, has focused mainly on the most ancient members of the class. At the same time, it has tried to give an account of the principal paths that lead to the undifferentiated growth of the class and to its re-determination, isolating new formations from the original nucleus. The most subversive tendencies have been recognized exactly in the two processes that Flobert considers as a proof of vitality of the entire class, as they contribute substantially to its numerical expansion, i.e. the creation of prefixed forms from simple DVs, and the derivation of denominal DVs through the *-ā-* suffix, from both nouns and adjectives.

TABLE 4: data from Flobert (1975)

	I: From the origin to 169 B.C. (Ennius' death)	II: From 169 B.C. to 43 B.C. (Cicero's death)	III: From 43 B.C. to the VIII century A.D.	TOTAL (with glosses and grammarians)
-ā- denominal	98	97	214	449
simple	64	75	111	277
prefixed	34	22	103	172
others	172	82	145	435
simple	71	25	17	125
prefixed	101	57	128	310
TOTAL	270	179	359	884
simple	135	100	128	402
prefixed	135	79	231	482

During the first period, among the attested 270 DVs, 98 are *-ā-* denominals and 101 are prefixed. During the successive period, out of 179 new DVs, only 25 are neither *-ā-* denominals nor prefixed ; probably some of them are ancient and do not appear in the first period only by chance. New prefixed verbs are 57, new *-ā-* denominals 97: they clearly constitute the majority. The

situation thereafter is even neater: from Cicero to the VIII century A.D., out of 359 new DVs, only 17 are neither prefixed nor denominals. Significantly enough, during the same period, the new denominals are 214, the new prefixed 128.

Globally, *-ā-* denominals constitute more than the half (449) of the total (884). Among the remaining 435 verbs, 310 are prefixed (209 of them are subsequent to Plautus' age)¹.

The numerical data show the extreme revolutionary force of the two devices; this impression is further corroborated by the functional deviations associated with them. Essentially, prefixation acts upon the syntactic configuration of the deponent class, causing a lot of DVs to become transitive, whereas intransitivity was a primary factor in the ancient nucleus. Derivation of *-ā-* denominals, on the other hand, undetermines the semantic coherence of the class, bringing into it contrasting triggers and creating lexical families based on quite superficial similarities of meaning (see also Mignot 1969).

TABLE 5: The use of prefixes with the most ancient DVs:

prefix	occurrences	prefix	occurrences
con-	31	pro-	6
e-, ex-	16	ab-	3
de-	15	am-	3
ad-	12	inter-	2
per-	9	po-	2
in-	8	prae-	2
ob-	8	dis-	1
re-	8	trans-	1
sub-	8		

TABLE 6: Some examples of lexical families among deponent *-ā-* denominals:

A) job, characteristic activity :

<i>arbitror</i>	<i>medicor</i>
<i>hariolor</i>	<i>interpretor</i>
<i>cauponor</i>	<i>philosophor</i>
<i>furor</i>	<i>poetor</i>

B) *sermo castrensis*

<i>populor</i>	<i>pabulor</i>
<i>velitor</i>	<i>praedor</i>
<i>lignor</i>	<i>auxilior</i>

C) contemned activities

<i>con-, per-graecor</i>	<i>scortor</i>
<i>parasitor</i>	<i>bacchor</i>
<i>quadruplor</i>	<i>criminator</i>
<i>sycophantor</i>	<i>fabricor</i>

¹ Note that under the label "prefixed", *-ā-* denominal prefixed verbs have not been considered, in order to keep them totally apart as a separate phenomenon. It is interesting to remark that prefixation is never an important factor of expansion in this subclass, contrary to the otherwise common pattern: in the other morphological categories, if we except compound verbs, the number of prefixed verbs is always higher -sometimes considerably- than that of simple forms; within the *-ā-* denominals, only 172 out of 449 are prefixed.

frustror

| *lustror*

The ancient deponents: a functional characterization

In the following classification, only the ancient DVs (I and II period of table 4) which are neither -*ā*- denominals nor prefixed (except for the cases where the prefixed form is the only one to be attested) have been analyzed, in order to reach a more precise functional characterization of the deponent flexion.

TABLE 7:

I : motion	II : naturally reciprocal events	III : self-benefactive
a) translational motion <i>gradior</i> and <i>grassor</i> <i>apiscor</i> (also III) <i>palor</i> and <i>?palitor</i> <i>sequor</i> (also II) and <i>sector</i>	<i>amplector</i> (also I b) and <i>amplexor</i> <i>complector</i> (also I b) <i>?luctor</i> <i>paciscor</i> (also III) and <i>pacificor</i>	<i>fruor</i> <i>fungor</i> <i>utor</i> <i>?nancior</i> and <i>nanciscor</i> <i>venor</i> <i>?liceor</i> and <i>licitor</i> <i>fruniscor</i> <i>ulciscor</i> (also IV b) <i>?mutuitor</i>
b) non translational motion <i>nitor</i>		<i>tutor</i> <i>potior</i> <i>vescor</i>
c) “inchoatives” = ingressives <i>conor</i> <i>ordior</i> <i>proficiscor</i> <i>molior</i>		
IV : verba affectuum		
a) cognitive processes <i>conruspor</i> <i>despicor</i> <i>susplicor</i> <i>opinor</i> <i>medeor</i> <i>reor</i> <i>perior</i> <i>comminiscor</i> <i>obliscor</i> <i>commentor</i> <i>meditor</i> <i>metior</i> (also I a) <i>ratiocinor</i> <i>aspernor</i> <i>mentior</i>	b) emotions <i>vereor</i> <i>misereor</i> <i>patior</i> <i>defetiscor</i> <i>?impliciscor</i> <i>irascor</i> <i>periclitator</i> <i>laetificor</i> <i>vitulor</i>	c) speech verbs <i>calvor</i> <i>loquor</i> and <i>loquitor</i> <i>queror</i> <i>adsentor</i> <i>?carinor</i> <i>for</i> <i>solor</i> <i>fateor</i> <i>horior</i> and <i>hortor</i> <i>minitor</i> <i>blandior</i> <i>causificor</i> <i>gratulor</i> <i>mantiscinor</i> (also V) <i>vaticinor</i> (also V)
V : spontaneous events	VI : perception	
<i>labor</i> <i>liquor</i> <i>morior</i> <i>orior</i> <i>expergiscor</i> <i>nascor</i> <i>sortior</i>	<i>conspicor</i> <i>tueor</i> (but cf. <i>tutor</i> : III)	

It is impossible to give here a motivation for the classification of every verb; sometimes, in the worst cases, it has been necessary to resort to etymology (see Gianollo 2000 for a deeper commentary). One big issue concerns the semantic explanation of MV with *verba dicendi*, i.e. verbs which express a speech act or a manner of speaking. The latter are easier to explain -they imply a

reference to subjectivity and describe a sort of internal process- but speech verbs such as *loquor* and *for* are still an unsolved problem for this kind of analysis.

Latin DVs fit easily Kemmer's (1993) semantic classes. What the present analysis tries to do, following the path of Lazzeroni's (1990) study on MV, is to understand if there are more subtle and deeper semantic features which determine the existence of such semantic classes, presumably in terms of *Aktionsart*. Lazzeroni (1990) has shown the importance of actionality considerations to explain the original lexical distribution of diathesis in Indo-European.

TABLE 8: (from Lazzeroni 1990 : 62)

	agentivity	process
STATIVES	–	–
EVENTIVES	–	+
AGENTIVE STATIVES	+	–

Ancient DVs code a situation of low agentivity. The semantic role of the subject can be defined as undergoer. Sometimes there is a greater degree of agentivity (subjects of verbs describing speech acts and especially of self-benefactive DVs), but the existence of a class of verbs describing spontaneous events, cognitive and psychological processes and motion is of great importance. DVs have a great predilection for human subjects: this is coherent with the often noted fact that nominative / accusative languages have often special devices to signal a non-prototypical subject, especially a human one (see also, for a similar view, Kurzová 1999).

Turning to actional features, DVs are typically dynamic, processive verbs, which can be mainly characterized as telic (achievements / accomplishments). They involve a transformation of the subject, which is affected by the action so that it loses part of its potential agentivity and it results as a patient-like subject with a limited control on the process described by the verb : cf. Delbrück's (1897) characterization of MV as expressing an happening (*Vorgang*), whereas the active expresses an action (*Handlung*).

The different way in which every class displays categorial features is exemplified in the table below:

TABLE 9:

	subject agentivity	subject affectedness	subject transformation	verb dynamism	verb telicity
spontaneous events	–	+	+	+	+
perception	–	+	+	+	+
<i>verba affectuum</i> (emotions)	–	+	+	+	+
<i>verba affectuum</i> (cognitive and speech processes)	+ / –	+	+ / –	+	+ / –
movement	+	+	+	+	+
self-benefactive	+	+	+	+	+ / –
reciprocal events	+	+	+ / –	+	+ / –

This kind of analysis in terms of categorial features leads to a tentative explanation for the existence of *media tantum* in nominative / accusative languages: although their system is oriented towards the expression of syntactic relations between arguments and predicates, it seems that nominative / accusative languages are always displaying some formal means of distinguishing predicates which are oriented towards a non-prototypical subject, i.e. a subject (especially a human one) which is transformed by the process described by the verb or which doesn't display any active involvement in the event. The prototypical subject in nominative / accusative languages is the agentive, transitive one (cf. Keenan 1976): it's natural that a human entity is more likely to perform this role. When the same human entity is deprived of his / her prototypical characteristics, languages look for a formal device to signal it: in active / middle languages this device consists in lexical MV. This is a kind of active / stative pattern.

Middle voice and Unaccusativity

Now it is possible to proceed towards a comparison with the phenomenon of Split Intransitivity or Unaccusativity. The more explanatory approach to this subject seems to be one along the path opened by Levin & Rappaport Hovav (1995), who state that Unaccusativity is semantically motivated and syntactically encoded. Once it is acknowledged that Unaccusativity effects have a semantic explanation, it appears that the factors determining the existence of unaccusative verbs can be compared to the ones which we have stated to be salient for *media tantum*.

According to Shannon (1987 : 466) the semantic core of Split Intransitivity can be recognized in "single-participant, perfective predicates denoting the beginning or end point of a change which the patient subject (non-volitionally) undergoes and which is not (conceived of as) brought about by another agentlike entity". Telic and dynamic features in the verbal semantics seem therefore to be determining. This analysis fits (at least in part) with the composition of unaccusative class in Italian stated by Centineo (1986) and Sorace (1995):

TABLE 10: Unaccusative hierarchy for Italian (according to Sorace 1995)

	telic	dynamic
CHANGE OF POSITION <i>andare</i>	+	+
CHANGE OF CONDITION <i>sparire</i>	+	+
PERSISTENCE OF A CONDITION <i>durare</i>	-	+
EXISTENCE OF A CONDITION <i>esistere</i>	-	-

In Italian the unaccusative class includes also some stative predicates: the "minimal trigger" (i.e. the minimal feature) for a verb to belong to unaccusative class in Italian is to express "existence of a state", whereas in some other languages, where this class is less broad, the minimal trigger falls closer to the core and it consists in the expression of a dynamic change affecting the subject (cf. Van Valin 1990 and Sorace 1995).

It seems therefore that the middle category shares with the unaccusative one the same lexical and oppositional uses, as ergative (anticausative) alternant of a transitive verb have the same syntactic properties of lexically unaccusative verbs.

According to this approach, Unaccusativity can be seen as a sort of verbal voice: it expresses the special relation of a predicate to its argument(s), marking it with some particular syntactic features.

Note that among Latin DVs there are no statives. How is it possible to match this situation with the account given by Lazzeroni (1990), who considers statives as the core of the middle category? With unaccusatives the minimal trigger to participate in the category is different in each language; statives occur only in languages where the unaccusative class is broad. The minimal trigger for Latin DVs seems to be “change of condition” and not “existence of a state”. The lack of statives among Latin DVs is therefore not a serious problem (though a very interesting one) for the theory. Moreover, Latin had another important and productive formal device to signal stativity: the verbal class formed with the *-ē-* suffix. It is still an open problem, which calls for further research, to state whether the eventive feature was also the core of Indo-European middles or it was just Latin which moved the centre of the category towards eventives. According to the present reconstruction, the first hypothesis seems stronger; in that case, eventives instead of statives should be considered to be the core, but then the theory should face many problems concerning the complex relationship of middle and perfect in Indoeuropean (cf. Di Giovine 1990).

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TABLE 4

	I: From the origin to 169 B.C. (Ennius' death)	II: From 169 B.C. to 43 B.C. (Cicero's death)	III: From 43 B.C. to the VIII century A.D.	TOTAL (with glosses and grammarians)
-ā-	98	97	214	449
denominal				
simple	64	75	111	277
prefixed	34	22	103	172
others	172	82	145	435
simple	71	25	17	125
prefixed	101	57	128	310
TOTAL	270	179	359	884
simple	135	100	128	402
prefixed	135	79	231	482

TABLE 7

I : motion	II : naturally reciprocal events	III : self-benefactive
b) translational motion <i>gradior</i> and <i>grassor</i> <i>apiscor</i> (also III) <i>palor</i> and <i>?palitor</i> <i>sequor</i> (also II) and <i>sector</i> b) non translational motion <i>nitor</i> c) “inchoatives” = ingressives <i>conor</i> <i>ordior</i> <i>proficiscor</i> <i>molior</i>	<i>amplector</i> (also I b) and <i>amplexor</i> <i>complector</i> (also I b) <i>?luctor</i> <i>paciscor</i> (also III) and <i>pacificor</i>	<i>fruor</i> <i>fungor</i> <i>utor</i> <i>?nancior</i> and <i>nanciscor</i> <i>venor</i> <i>?liceor</i> and <i>licitor</i> <i>fruniscor</i> <i>ulciscor</i> (also IV b) <i>?mutuitor</i> <i>tutor</i> <i>potior</i> <i>vescor</i>
IV : verba affectuum		
a) cognitive processes <i>conruspor</i> <i>despicor</i> <i>suspisor</i> <i>opinor</i> <i>medeor</i> <i>reor</i> <i>perior</i> <i>comminiscor</i> <i>obliscor</i> <i>commentor</i> <i>meditor</i> <i>metior</i> (also I a) <i>ratiocinor</i> <i>asperor</i> <i>mentior</i>	b) emotions <i>vereor</i> <i>misereor</i> <i>patior</i> <i>defetiscor</i> <i>?impliciscor</i> <i>irascor</i> <i>periclitior</i> <i>laetificor</i> <i>vitulor</i>	c) speech verbs <i>calvor</i> <i>loquor</i> and <i>loquitor</i> <i>queror</i> <i>adsentor</i> <i>?carinor</i> <i>for</i> <i>solor</i> <i>fateor</i> <i>horior</i> and <i>hortor</i> <i>minitor</i> <i>blandior</i> <i>causificor</i> <i>gratulor</i> <i>mantiscinor</i> (also V) <i>vaticinor</i> (also V)
V : spontaneous events	VI : perception	
<i>labor</i> <i>liquor</i> <i>moriator</i> <i>orior</i> <i>expergiscor</i> <i>nascor</i> <i>sortior</i>	<i>conspicor</i> <i>tueor</i> (but cf. <i>tutor</i> : III)	

TABLE 9

	subject agentivity	subject affectedness	subject transformation	verb dynamism	verb telicity
spontaneous events	–	+	+	+	+
perception	–	+	+	+	+
<i>verba affectuum</i> (emotions)	–	+	+	+	+
<i>verba affectuum</i> (cognitive and speech processes)	+ / –	+	+ / –	+	+ / –
movement	+	+	+	+	+
self-benefactive	+	+	+	+	+ / –
reciprocal events	+	+	+ / –	+	+ / –