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34 Derivational networks in Lithuanian

34.1 General notes

Lithuanian productively uses suffixation to derive nouns, verbs and adjectives, while prefixation is much more frequent in verbal than in nominal and adjectival derivations. Reflexive (middle) verbs are derived by the addition of the reflexive marker (RM), which takes its position depending on the morphemic structure of the base (see more on this category and its marker in Chapter 32). Lithuanian also employs composition and paradigmatic derivations, but these are out of the scope of the present study.¹

The use of lexemes included in the derivational networks (DNs) was checked in 2017–2018 using the following sources: (1) the *Dictionary of Modern Lithuanian* (DŽ), (2) the Corpus of Contemporary Lithuanian (CCL), and (3) online texts indexed by Google. In the case of the dialectal and possibly archaic lexemes listed in DŽ, preference was given to CCL and online data. However, one should bear in mind that the search functions provided by the CCL and Google are limited and some omissions and misjudgements are still possible.

In nominal and adjectival derivational networks, some cases were found where the lexemes could be interpreted either as prefixal derivations or as compounds consisting of a preposition and a noun. For example, either *be-dant-is* ‘toothless’ is based on the prepositional phrase *be dant-ų* (without tooth-GEN.PL) ‘without tooth’, or *be-* is recognized as a PRIVATIVE prefix. In this study, the traditional prefixal interpretation was adopted (Ulvydas 1965: 590; Stundžia 2016: 3097; see an alternative view in Paulauskienė 1994: 95). The Lithuanian prescriptive tradition does not recognize INSTRUMENTS derived with the suffixes used to form AGENTS, but derivatives of this type are quite productive and were included based on their attestations in the CCL and online texts.

For verbs, the suffix *-y-ti* occurring in the infinitive stem is traditionally interpreted as a derivational suffix (Ulvydas 1971: 244; Ambrazas 2005: 396, 399; Stundžia 2016: 3100), but it is absent from other stems and arguably functions as an inflection-class marker (Pakerys 2011). Following this interpretation, formations containing *-y-ti* only in the infinitive stem were not included.

¹ For more details and further references, see the latest overview of Lithuanian word-formation by Stundžia (2016).

Finally, it should be mentioned that the adjective *šilt-as* (warm-NOM.SG.M) ‘warm’ used in the basic word list (cf. Chapter 1.3.2) may be interpreted as derived in the suffix *-t-* from *šil-ti* (get.warm-INF) ‘get warm’ (Ulvydas 1965: 552; Ambrazas 2005: 223); however, this type is non-productive and very limited, hence the lexeme was considered acceptable for the basic word list. (Other notes relevant for both Latvian and Lithuanian derivations can be found in Chapter 32.)

34.2 Maximum derivational networks

As can be seen in Table 34.1 below, verbs produced the largest derivational networks, while nouns and adjectives had similarly sized maximum derivational networks in the 1st order; however, in total, adjectives produced larger derivational networks than nouns due to significant expansion in the 2nd and 3rd orders. With regard to the total numbers of derivatives, the verbs of the sample produced 635 formations, followed by adjectives (379), then nouns (152). None of the words had 5th order derivations, and nouns had only a few formations in the 3rd order and derived none in the 4th order.

Table 34.1: Maximum derivational networks per order of derivation for all three word-classes.

	1st order	2nd order	3rd order	4th order	5th order	Σ
Nouns	29	23	4	0	0	56
Verbs	56	98	45	5	0	204
Adjectives	26	37	19	3	0	85
TOTAL	111	158	68	8	0	345

The size of verbal derivational networks can be explained by the ability of verbs to derive regular nominal formations and numerous prefixal derivatives, which in turn develop their sub-networks. The derivational networks of adjectives were larger than those of nouns because adjectives exhibit some paradigmaticity (see comments above Table 34.4) and also productively derive verbs, which help expand the adjectival networks in the 2nd and 3rd orders. (This pattern is typical for qualitative adjectives, and in our sample all adjectives belonged to this class.)

34.3 Saturation values

The saturation values of nominal derivational networks ranged from 9% to 46% (see Table 34.2 below). The smallest derivational networks were for *utėlė* ‘louse’ and *ugnis* ‘fire’, while the most saturated ones belonged to *vardas* ‘name’, *kaulas* ‘bone’ and *šuo* ‘dog’. In some cases, a high saturation value in the 1st order seemed to warrant a high total saturation, but this was not always the case. For example, *šuo* ‘dog’ had a saturation of 48% in the 1st order but dropped to 26% in the 2nd order, while *vardas* ‘name’ and *kaulas* ‘bone’ had lower values in the 1st order (41%) compared to that of *šuo* ‘dog’, but succeeded in maintaining the pace of the expansion of their derivational networks in the 2nd order (43% and 39%, respectively).

Table 34.2: Saturation values per order of derivation, nouns.

Nouns	Saturation value (%)	1st order (%)	2nd order (%)	3rd order (%)	4th order (%)	5th order (%)
<i>bone</i> <i>kaulas</i>	39.29	41.38	39.13	25	0	0
<i>eye</i> <i>akis</i>	33.93	27.59	47.83	0	0	0
<i>tooth</i> <i>dantis</i>	17.86	31.03	4.35	0	0	0
<i>day</i> <i>diena</i>	14.29	17.24	8.7	25	0	0
<i>dog</i> <i>šuo</i>	37.5	48.28	26.09	25	0	0
<i>louse</i> <i>utėlė</i>	8.93	10.34	8.7	0	0	0
<i>fire</i> <i>ugnis</i>	8.93	10.34	8.7	0	0	0
<i>stone</i> <i>akmuo</i>	33.93	37.93	30.43	25	0	0
<i>water</i> <i>vanduo</i>	30.36	31.03	26.09	50	0	0
<i>name</i> <i>vardas</i>	46.43	41.38	43.48	100	0	0

For verbs, the smallest derivational network belonged to *žinoti* ‘know’ (saturation value of 3%), and the most developed derivational networks were for *traukti* ‘pull’ (62%) and *pjauti* ‘cut’ (52%), as shown in Table 34.3 below. Similarly to nominal derivational networks, a highly saturated 1st order does not necessarily warrant a high total saturation. For a lexeme to develop a well-saturated derivational network, the 1st order is important, but the derivational network needs to be constantly developed in the following orders. For example, *mesti* ‘throw’

Table 34.3: Saturation values per order of derivation, verbs.

Verbs	Saturation value (%)	1st order (%)	2nd order (%)	3rd order (%)	4th order (%)	5th order (%)
<i>cut</i> <i>pjauti</i>	52.45	48.21	51.02	62.22	40	0
<i>dig</i> <i>kasti</i>	35.78	39.29	36.73	33.33	0	0
<i>pull</i> <i>traukti</i>	62.25	51.79	66.33	62.22	100	0
<i>throw</i> <i>mesti</i>	41.18	35.71	47.96	35.56	20	0
<i>give</i> <i>duoti</i>	13.73	21.43	10.2	13.33	0	0
<i>hold</i> <i>laikyti</i>	16.18	25	13.27	13.33	0	0
<i>sew</i> <i>siūti</i>	33.82	32.14	35.71	28.89	60	0
<i>burn</i> <i>degti</i>	24.02	26.79	18.37	28.89	60	0
<i>drink</i> <i>gerti</i>	28.43	42.86	28.57	13.33	0	0
<i>know</i> <i>žinoti</i>	3.43	7.14	2.04	2.22	0	0

had a lower saturation value in the 1st order (36%) than *gerti* ‘drink’ (43%), but it kept expanding its derivational network in the 2nd order (48%), while *gerti* ‘drink’ started to lose to its competitors (29%). The top two lexemes, *traukti* ‘pull’ and *pjauti* ‘cut’, already scored highly in the 1st order and, most importantly, maintained their saturation in the 2nd and 3rd orders.

As can be seen in Table 34.4 below, the saturation values of adjectival derivational networks ranged from 34% for *šiltas* ‘warm’ to 64% for *juodas* ‘black’. As noted above, a relatively high 1st order score needs to be maintained in the subsequent orders to develop a well-saturated derivational network.

Table 34.5 presents the average saturation values across word-classes and orders. Adjectival derivational networks in particular stand out. In the 1st order (average saturation of 56%), adjectival derivational networks were still far away from the saturation seen in typical inflectional paradigms, but these derivational networks seemed to be the most regular of all word-classes. Deverbal ACTIONS, denominal DIMINUTIVES and some other categories are productive, but as a whole, they are unable to offset a certain paradigmatic effect of the productive deadjectival categories. As noted earlier, qualitative adjectives also differ from nouns in their ability to derive regular verbal formations in the 1st order, which in turn seems to help maintain relatively high average saturation values in the 2nd and 3rd orders, which are filled by many deverbal formations.

Table 34.4: Saturation values per order of derivation, adjectives.

	Adjectives	Saturation value (%)	1st order (%)	2nd order (%)	3rd order (%)	4th order (%)	5th order (%)
<i>narrow</i>	<i>siauras</i>	41.18	46.15	35.14	52.63	0	0
<i>old</i>	<i>senas</i>	48.24	69.23	40.54	42.11	0	0
<i>straight</i>	<i>tiesus</i>	36.47	38.46	37.84	36.84	0	0
<i>new</i>	<i>naujas</i>	44.71	57.69	32.43	47.37	66.67	0
<i>long</i>	<i>ilgas</i>	44.71	50	40.54	42.11	66.67	0
<i>warm</i>	<i>šiltas</i>	34.12	46.15	27.03	36.84	0	0
<i>thick</i>	<i>storas</i>	44.71	61.54	37.84	36.84	33.33	0
<i>bad</i>	<i>blogas</i>	40	57.69	29.73	36.84	33.33	0
<i>thin</i>	<i>plonas</i>	48.24	53.85	40.54	52.63	66.67	0
<i>black</i>	<i>juodas</i>	63.53	76.92	64.86	52.63	0	0

Table 34.5: Average saturation values per order of derivation for all three word-classes.

	1st order (%)	2nd order (%)	3rd order (%)	4th order (%)	5th order (%)
Nouns	29.65	24.35	25.00	0	0
Verbs	33.036	31.02	29.33	28.00	0
Adjectives	55.77	38.65	43.68	26.67	0

33.4 Orders of derivation

The maximum number of orders of derivation was three for nouns (2.6 on average) and four (3.5 on average) for verbs and adjectives (see Table 34.6). Again, the difference between nouns and adjectives can be explained by the productive formation of deadjectival verbs, which produce corresponding verbal derivational networks; conversely, the lower numbers of nominal orders of derivation seem to be primarily limited by less productive denominal verbs.

Table 34.6: Maximum and average number of orders of derivation for all three word-classes.

	Maximum	Average
Nouns	3	2.6
Verbs	4	3.5
Adjectives	4	3.5

34.5 Derivational capacity

The derivational capacity, which is measured as the number of direct 1st order derivatives, was highest for verbs, reaching a maximum of 29 and an average of 18.5 (see Table 34.7). In this respect, verbs surpassed nouns by a factor of a little more than two, while adjectives fell in between. As noted earlier, the high derivational capacity of verbs results from their ability to derive numerous prefixal formations and regular deverbal nominals. Adjectives have a higher derivational capacity than nouns because they have more paradigmatic derivational networks and derive more verbs than nouns do.

Table 34.7: Maximum and average derivational capacity for all three word-classes.

	Maximum	Average
Nouns	14	8.6
Verbs	29	18.5
Adjectives	20	14.5

When the average number of derivatives across orders is considered (Table 34.8), one notices a decreasing trend for nouns, while adjectival derivational networks maintain their capacity in the 2nd order and then start decreasing in the 3rd order. Verbal derivational networks, however, behave differently: they skyrocket to a peak in the 2nd order and then dip into a sudden decline in the 3rd order. Verbal and adjectival patterns seem to be explained by derived verbs in the 1st order; as mentioned above, verbs are usually able to derive large numbers of prefixal formations, while deadjectival verbs are regular but much lower in number, hence the difference in the number of further derivations in the 2nd order.

Table 34.8: Average number of derivatives per order of derivation for all three word-classes.

	1st order	2nd order	3rd order	4th order	5th order
Nouns	8.6	5.6	1	0	0
Verbs	18.5	30.4	13.2	1.4	0
Adjectives	14.5	14.3	8.3	0.8	0

34.6 Correlation between semantic categories and orders of derivation

In the 1st order, all 10 nouns from the basic word list derived DIMINUTIVES, 8 nouns had RELATIONAL adjectives, and 7 nouns had POSSESSIVE and PRIVATIVE formations. In the 2nd order, the top categories were ABSTRACTIONS (typically derived from POSSESSIVE adjectives, attested in 8 derivational networks) and deverbal ACTIONS (attested in 7 derivational networks), followed by FINITIVES (in 6 derivational networks). The 3rd order contained ACTION nominals only (in 6 derivational networks). In sum, the 1st order reflects the productivity of Lithuanian denominal DIMINUTIVES and some denominal adjectival categories (RELATIONAL, POSSESSIVE, PRIVATIVE). Further orders show expected patterns for the respective word-classes, as noted for verbs (deriving ACTIONS) and adjectives (deriving ABSTRACTIONS) below; it should be noted, however, that in the verbal derivational networks discussed below, DIRECTIONAL formations surpass FINITIVE ones.

All 10 verbs derived ACTIONS in the 1st order and the majority of them also had AGENT and DIRECTIONAL formations (9 and 8, respectively). In the 2nd order, all verbs derived in the 1st order had ACTIONS, 9 derivational networks contained REFLEXIVES, and 8 derivational networks had AGENTS. The 3rd and 4th orders were again dominated by deverbal ACTIONS (attested in 10 and 5 derivational networks, respectively). In sum, verbal derivational networks are good representations of the general productivity of ACTION, REFLEXIVE, DIRECTIONAL, and AGENT formations in Lithuanian.

The 1st order of derivation of the adjectives shows the certain paradigmatic effect noted earlier. For all 10 lexemes, this order includes at least one formation for each of the seven categories: ABSTRACTION, PRIVATIVE (as negative), MANNER, AUGMENTATIVE (as intensive), SIMILATIVE (as attenuative), PATIENT (as a bearer of QUALITY) and PROCESS. The CAUSATIVE derivation is absent only for ‘old’, because this slot is taken by a deverbal formation (*sen-ti* (grow.old-INF) ‘grow old’ > *sen-din-ti* (grow.old-CAUS-INF) ‘make old’, while the verbal STATIVE is only

realized for ‘black’ and ‘bad’. In the 2nd order, all 10 derivational networks contain derivations for ACTION and DIMINUTIVE (mostly deverbal), 9 derivational networks include REFLEXIVES, and 8 derivational networks have FINITIVES; out of the deadjectival categories, MANNER is the most frequent (realized in 8 derivational networks) and is always derived from SIMILATIVES of the 1st order. The 3rd order is characterized by ACTIONS (attested in 10 derivational networks) and REFLEXIVES (in 9 derivational networks), while in the 4th order, only ACTION is available (in 5 derivational networks). To conclude, the 1st order is characterized by a large number of categories realized for all, or almost all, bases. Further orders producing verbs are similar to nominal derivational networks, whereby FINITIVE formations are frequent and DIRECTIVES are uncommon, which is understandable given the largely non-spatial semantics of these verbs.

In general, the occurrence of particular categories seems to be more related to the word-classes of available bases than to orders, and typically productive categories for a given word-class are realized.

34.7 Semantic categories with blocking effects

For nominal derivational networks, a typical blocking category in the 1st order was DIMINUTIVE, with the exception of when a further DIMINUTIVE was derived, e.g. *vard-as* (name-NOM.SG) ‘name’ > *vard-el-is* (name-DIM-NOM.SG) ‘dear, cute name’ > *vard-el-yt-is* (name-DIM-DIM-NOM.SG) ‘a very cute name’. In the 2nd order, derivation stopped in the categories of ABSTRACTION and ACTION, and in the 3rd order, the terminal category was ACTION (but note some examples of possible further derivation from these categories below).

ACTION is typically a blocking category in all orders of verbal derivational networks and it may only occasionally derive further DIMINUTIVES, such as *met-im-as* (throw-AN-NOM.SG) ‘throw (as in a basketball game)’ > *met-im-uk-as* (throw-AN-DIM-NOM.SG), especially when the base undergoes some concretization. Denominal DIMINUTIVES frequently behave as terminal categories, as mentioned above, but deverbal DIMINUTIVES differ by usually allowing further derivation.

For adjectives, the typical blocking categories in the 1st order are MANNER and ABSTRACTION. In the 2nd order, MANNER, ACTION, AGENT, and INSTRUMENT hamper further derivation, while in the 3rd and 4th orders, ACTION is the most frequent terminal category. It should be noted, however, that ABSTRACTIONS may derive some DIMINUTIVES in Lithuanian, such as *skan-us* (tasty-NOM.SG.M) ‘tasty’ > *skan-um-as* (tasty-ABSTR-NOM.SG) ‘flavour, tastefulness’ > *skan-um-ël-is*

(tasty-ABSTR-DIM-NOM.SG) ‘diminutive of flavour (with some emphasis)’, but they were not attested in the sample of derivational networks examined in the present study. The same applies to AGENTS and INSTRUMENTS, which may allow further derivatives (denominal verbs, DIMINUTIVES, etc.), but none occurred in the adjectival derivational networks of the sample. The blocking effect of MANNER, however, seems to be related to the semantic category of the base: in general, adverbs in Lithuanian allow the formation of PRIVATIVES (with negation), but in blocking cases, the adverbs were derived from SIMILATIVES (attenuatives), which most probably hampered the further formation of PRIVATIVE (negative) derivatives.

34.8 Typical combinations of semantic categories

There were no typical noun > noun category combinations noted in derivational networks beginning with nouns. Of the (noun >) adjective > noun cases, POSSESSIVE-ABSTRACTION, such as *ak-is* (eye-NOM.SG) ‘eye’ > *ak-yl-as* (eye-POSS-NOM.SG.M) ‘having good eyes, sharp-sighted’ > *ak-yl-um-as* (eye-POSS-ABSTR-NOM.SG) ‘watchfulness’, was quite common, being attested in 8 derivational networks (9 formations in total) that began with a noun from the basic word list and in 2 derivational networks (2 formations in total) that began with a verb from that list. PROCESS-ACTION (5 formations in 5 derivational networks) and PROCESS-FINITIVE-ACTION (6 formations in 5 derivational networks) were less frequent.

The typical category combinations beginning with a verb were DIRECTIONAL-ACTION, such as *kas-ti* (dig-INF) ‘dig’ > *iš-kas-ti* (DIR-dig-INF) ‘dig out’ > *iš-kas-im-as* (DIR-dig-AN-NOM.SG) ‘digging out’ (51 formations in 8 derivational networks of simplex verbs and 2 formations in 1 derivational network derived from complex verbs), and its extended version with the RM, DIRECTIONAL-REFLEXIVE-ACTION (33 cases in 5 derivational networks). Less common was FINITIVE-ACTION (5 formations in 5 derivational networks of simplex verbs), which was also found in the derivational networks of deadjectival and denominal verbs (see above and below). REFLEXIVE-ACTION was found in 6 formations belonging to 6 derivational networks of simplex verbs. (When complex prefixless verbs are included, 2 more formations can be added.) Another combination was DIRECTIONAL-ITERATIVE/DURATIVE, as in *kas-ti* (dig-INF) ‘dig’ > *at-kas-ti* (DIR-dig-INF) ‘dig up’ > *at-kas-inė-ti* (DIR-dig-ITER-INF) ‘dig up (as ITERATIVE or imperfective)’ (19 formations in 3 derivational networks of simplex verbs, 15 of which also derive ACTIONS). Of the denominal formations in verbal derivational networks, the combination INSTRUMENT-DIMINUTIVE stood out (10 formations in 4 derivational networks).

For adjectives (adjective > adjective), SIMILATIVE-MANNER (13 formations in 8 derivational networks of simplex adjectives and 5 formations in 3 derivational networks from derived adjectives) and MANNER-PRIVATIVE (9 formations in 8 derivational networks of simplex adjectives) can be identified as quite common combinations. An example is the following: *sen-as* (old-NOM.SG.M) ‘old’ > *sen-ok-as* (old-SIM-NOM.SG.M) ‘somewhat old’ > *sen-ok-ai* (old-SIM-MANN) ‘quite a while ago’, *sen-as* (old-NOM.SG.M) ‘old’ > *seni-ai* (old-MANN) ‘long time ago’ > *ne-seni-ai* (NEG-old-MANN) ‘not long ago’. Other typical combinations belong to the type (adjective >) verb > noun, including PROCESS-ACTION (12 formations in 10 adjectival derivational networks), PROCESS-FINITIVE-ACTION (8 formations in 5 adjectival derivational networks), CAUSATIVE-REFLEXIVE-ACTION (8 formations in 8 derivational networks), CAUSATIVE-FINITIVE-REFLEXIVE (8 formations in 6 derivational networks), and CAUSATIVE-INSTRUMENT (9 formations in 7 derivational networks).

Some of these combinations are quite trivial because their second members are simply productive and thus are independent of the first members. For example, if a new verb is derived (irrespective of the above-mentioned category of the base), it will probably have a productive ACTION nominal, and when new adverbs enter the lexicon, many of them can be negated (MANNER-PRIVATIVE). The formation of the POSSESSIVE, however, can be held at least partly responsible for the further derivation of ABSTRACTION because POSSESSIVE adjectives are qualitative, and qualitative adjectives (not relational ones) can derive ABSTRACTIONS. In a similar fashion, CAUSATIVES create a precondition for the formation of REFLEXIVES and INSTRUMENTS because they are usually derived from transitives. Consider also the case of DIRECTIONAL-DURATIVE: DIRECTIONAL prefixes make the verbs perfective, which is a necessary precondition for the DURATIVE (imperfective) to be formed.

34.9 Multiple occurrence of semantic categories

The multiple occurrence of semantic categories is, in general, rare in Lithuanian derivation, with the exception of the suffix stacking of adjectival AUGMENTATIVES (intensifiers): ten cases were found with two suffixes and one case with three suffixes: *nauj-ut-ël-ait-is* (new-INT-INT-INT-NOM.SG.M) ‘very very new’. Suffix stacking in nominal DIMINUTIVES is also possible and was attested in one case with two affixes: *vard-el-yt-is* (name-DIM-DIM-NOM.SG) ‘a very cute name’.

Of the cases when a multiple occurrence was interrupted by another category, the combination ABSTRACTION-SIMILATIVE-ABSTRACTION was noted in two

derivational networks, as in *nauj-as* (new-NOM.SG.M) ‘new’ > *nauj-ov-ė* (new-ABSTR-NOM.SG) ‘novelty’ (ABSTRACTION) > *nauj-ov-išk-as* (new-ABSTR-SIM-NOM.SG.M) ‘new-fashioned’ (SIMILATIVE) > *nauj-ov-išk-um-as* (new-ABSTR-SIM-ABSTR-NOM.SG) ‘novelty’ (ABSTRACTION).

34.10 Reversibility of semantic categories

Verbs with the structure prefix(-RM)-root(-suffix) may allow alternative interpretations of their derivational history, which means that some categories can occur in the reverse order (see a short discussion and some examples in Chapter 32). The most frequent categories expressed by the prefixes in these cases are DIRECTIVE and FINITIVE. The RM has a number of meanings subsumed in this study under the label of REFLEXIVE, while the suffixes typically denote CAUSATIVE or ITERATIVE actions. However, it should be noted that the end result (the ordering of morphemes) is always the same, irrespective of the assumed order of derivation.

34.11 Conclusions

The largest derivational networks were produced by verbs, followed by adjectives, then nouns. The maximum number of orders was four, attested in verbal and adjectival derivational networks (both having 3.5 orders on average), while nouns had smaller derivational networks (2.6 orders on average, with a maximum of three). The same ranking of the word-classes is also achieved when the derivational capacity is measured. The size of verbal derivational networks can be explained by productive prefixal derivation and the regular formation of deverbal nominals, while adjectives surpass nouns in their ability to derive verbs more regularly and show a more developed derivational paradigmaticity.

In regard to saturation values, high numbers in the 1st order do not necessarily warrant well-saturated derivational networks overall. For a lexeme to develop an extensive derivational network, a relatively high level of saturation needs to be maintained in the orders following the initial one. The average saturation values of adjectival derivational networks stand out and can be recognized as the most paradigmatic, followed by those of verbs and nouns.

The occurrence of semantic categories in different orders reflects their general productivity and seems to be mostly related to the word-classes of available bases in a given order. Some category combinations can be regarded as trivial

because their second members are largely independent of the first ones and reflect general productivity. However, a number of categories can be argued to provide certain preconditions for further derivation, such as POSSESSIVE-ABSTRACTION, CAUSATIVE-REFLEXIVE, CAUSATIVE-INSTRUMENT, and DIRECTIONAL-DURATIVE. The categories usually blocking further derivation are denominal DIMINUTIVES, deverbal and deadjectival ABSTRACTIONS, deverbal ACTIONS (all with some attested or possible exceptions) and deadjectival MANNER formations derived from SIMILATIVES (attenuatives).

The multiple occurrence of categories was attested in the cases of stacked AUGMENTATIVE (intensive) and denominal DIMINUTIVE suffixes and in the chain ABSTRACTION-SIMILATIVE-ABSTRACTION. The reversibility of categories can be recognized in the cases when the addition of the RM, verbal prefixes (mostly expressing FINITIVE and DIRECTIVE) and suffixes (marking ITERATIVE and CAUSATIVE) allows alternative interpretations of the order of derivation. However, the order of morphemes in the derivative is always the same, irrespective of the history of derivation.

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