Evolutionary trajectories of word-formation processes in the Old High German language

Larysa Shchyhlo, Sumy State University, Ukraine

The purpose of this article is to model the evolution of the word-formation system in the ancient stage of the diachrony of the High German language in a multidisciplinary focus, especially from the standpoint of a special direction of the synergetic paradigm – evolutionary linguistic synergetics. The expediency of using the ideas of synergetics as a transdisciplinary methodology to the development of the linguistic system in general and its subsystems (in our case, word-formation) in particular is determined and substantiated; the mechanisms and conditions for the self-organization of the German word-formation system are analyzed; the degree of extralinguistic factors influence on the self-development of the German word-formation system is established.

Keywords: *synergetics, linguistic synergetics, evolutionary linguistic synergetics, word-formation, the Old High German language.*

1. Introduction

Synthesis of different disciplines takes place in modern science within synergetics – interdisciplinary (and broader – transdisciplinary) scientific direction of the study of complex, open, dynamic, self-organizing, non-linearly evolving systems of different ontologies. Interdisciplinarity of synergetics consists in cooperation of methods and principles of research of complex systems developed in the framework of various scientific disciplines, which are united by the object of research – complex systems, studying stages of their self-organization, revealing general patterns of their functioning, establishing general principles of their evolution.

Synergetics is not a fundamentally new paradigm of scientific knowledge. We are in agreement with scientists who are considering synergetics as

> a special area of system research, as the next stage in the theory of systems development, aiming at disclosure of changability's nature, revealing the mechanisms of system transition to a qualitatively new state, 'unpacking' the concept of 'dialectical leap' in the evolutionary development of a complex system (Dombrovan 2013: 68).

Nowdays we can say about the successful cooperation of synergetics and linguistics, having been embodied in a new integrative interdisciplinary (and broadly – transdisciplinary) direction in the science of language – linguistic synergetics or linguosynergetics.

In modern linguistics, the following directions are clearly defined: (1) psycholinguistic approach or psycholinguistics (Haken 2000; Moiseeva 2007) integrates synergetics and the theory of speech activity; (2) functional linguosynergetics, proposed by Ponomarenko, combines system-functional and synergetic perspectives of language ∕ speech ∕ discourse (Ponomarenko 2010); (3) linguistic synergetics (Keller 1994; Piotrovskij 2006) is oriented, first of all, on quantitative data of synergetic mechanisms of language ∕ speech and their statistical processing; (4) diachronic linguosynergytics (Dombrovan 2013; 2018) is focused on modeling of a particular language system evolution with prediction of variants of its subsequent

changes, depending on multi-vector bifurcations and the diversity of potential attractors; (5) contradiction-synergistic approach (contradiction-synergetic linguistics) (Myshkina 1999), which introduces the energy dimension into the linguosynergic perspective of the language; (6) the linguosynergic approach in the genre studies is aimed to reveal the mechanisms of various language genres development (Pikhtovnikova 1999); (7) using the gestalt-synergetic approach Ljudmila Kushnina develops the applied aspect of linguistic synergetics in order to create a synergetic semantic translation model – the translation space, which is considered as an open, dynamic, developing system (Kushnina 2004); (8) the semiotic-synergetic approach integrates synergetic and semiotic principles, which in particular allowed to investigate the postmodern fiction discourse as a self-organizing semiotic space (Oliz'ko 2009).

Substantiating theoretical and conceptual foundations of sunergetic approach to the study of language system, Ukrainian researcher Tetiana Dombrovan schematically depicts the conceptual basis of linguistic synergetics in the form of a radial diagram containing three basic components that represent the main methodological principles of the three components of linguosynergetics: philosophy, linguistics, synergetics (Figure 1).
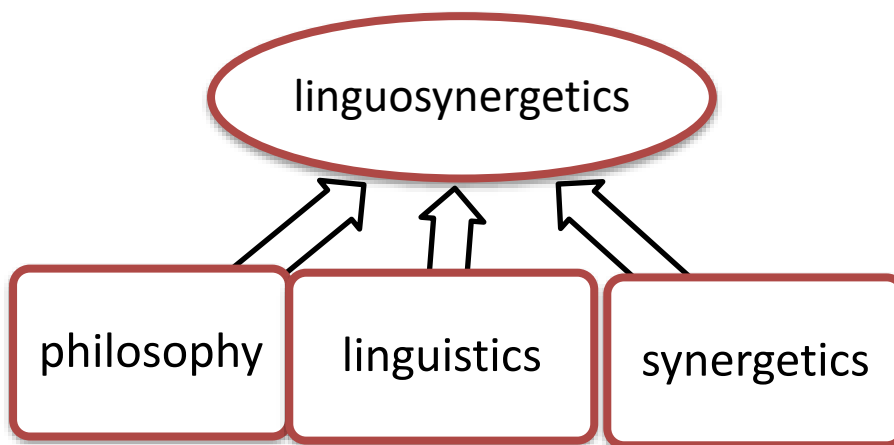

Figure 1: Conceptual and methodological platform of linguistic synergetics
(Dombrovan 2013: 70)

The diagram reflects the integrative approach to cognitive activity within the framework of linguistic synergetics, the combination of methodologies for the study of humanitarian and natural sciences (Dombrovan 2013: 70).

So, as we see from the scheme, the basic foundation of linguistic synergetics is philosophy. The relevance of the synergistic approach to the philosophical understanding of language is caused by its nature, its multifunctionality and the properties as an open, evolving system.

One of the constituent structures of the conceptual and methodological platform of linguistic synergetics is linguistics itself, because there is a need to develop the language concept as a complex hierarchically organized megasystem, the components of which are coherently linked.

The excursus in the history of linguistics shows that ideas similar to synergetic were proclaimed already in the first quarter of the 19th century in the works of the German scientist Vilhelm von Humboldt. This is the idea of self-regulation of the language: "Languages did not arise out of arbitrariness or arrangement, but they came out of the hiding plases of human nature

and are self-regulating and developing sound elements" (von Humboldt 1984: 324); as well as the idea of a spontaneous self-organization of language: "Whatever the natural assumption of gradual formation of languages, they could only arise immediately. Man is a man only through language; but in order to create a language, it must already be a man" (von Humboldt 1964: 80). And further:

> It is impossible to imagine a language as something previously given, because in this case it is completely incomprehensible how a man could understand this reality and force it to serve itself. Language, of course, arises from a man and, of course, little by little, but so that the body of language does not lie dead in the darkness of the soul, but is a law determing the mental function of a person, therefore the first word already defines and assumes the existence of the whole language. If this unique ability of a man to try to compare with something else, then you have to remember about the animal instinct and call the language the intellectual instinct of the mind [ibid.].

It should be emphasized that Vilhelm von Humboldt gives an opinion about the evolutionary-dynamic approach to language, considering language not so much as a product of activity (ergon), but as an activity itself (energeia) (von Humboldt 1984: 7).

An appeal to synergetics in the process of studying the language system is fully justified, because it is caused by the language properties as a dynamic, complex organizing synergetic system.

So, language as a complex self-organizing system is the object of transdisciplinary study – linguistic synergetics or linguosynergetics. Linguosynergetics is a transdisciplinary network structure of science, where linguistic knowledge varies depending on the chosen scientific perspective, and other relevant knowledge is united on the basis of evolutionary-synergetic principles (Bronnik 2012: 9). Evolutionary linguistic synergetics or evolutionary linguosynergetics, basing on the principle of universal evolutionism is one of the methodological approaches within linguosynergetics for studing the phenomenon of spontaneous occurrence – the self-organization of structures in various diachronic stages of the linguistic system development. The main task of the proposed theory is to reveal the internal and external laws of the language system evolution (Shchyhlo 2017: 87).

The development of the linguistic theory in general and the theory of word-formation in particular, the experience gained in the field of word-formation analysis of separate stages of the German language development allowed us to recreate the development of the German word-formation system on the basis of the evolutionary linguosynergetics. Such interdisciplinary orientation of the research contributes to a comprehensive, thorough description of the factors and mechanisms of changes in the word-formation macrosystem at a qualitatively new level.

2. Research methods

To ensure the reliability of the results and conclusions the following research methods are used: observation of investigated phenomena and processes, analysis and descriptions of their changes and functioning, induction (for summarizing the results of the observation), deduction (for checking of general statements on a particular language material). The method of component analysis is used in this paper for identification and definition of the semantic structure of derivatives and complicated words.

The modeling method is applied for reproducing the history dynamics of the German word-formation system.

3. Presentation of the main research material

The diachrony of the Germanic languages covers more than a thousand years. They passed this long way in various linguistic and extra-linguistic conditions. There were some general tendencies and a unified direction of the language system formation, but each language was characterized by its own specific features and was unique. The development and establishment of the Germanic languages continues in the pre-literary period. The Great Migration of peoples in the 4th – 5th centuries had a significant influence on this process, which resulted in the formation of the German nation from the West Germans with its own language – German. In the VI century begins the second movement of consonants, which was manifested primarily in the South Germanic dialects. All changes in the German language (including the word-formation system) in the pre-literary period are prone to the influence of Vulgar Latin and Gallo-Romance. The specificity of the German language evolution in this period was its development in conditions of dialect variety. As generally known, the Old High German language is the language of Germanic tribes, fixed in written sources, dating from about 750 year to 1050. The mentioned language was represented by a group of East Germanic dialects of the tribes of Franks, Alemans and Bavarians. They became the base for the future development of the High German language.

3.1 Substantive derivation in the Old High German language

Derivatives with an agent suffix -âri. The suffix *-âri* comes from the Latin *-arius* and was borrowed from the Latin language together with the words into which it was included (for example, *molinarius* 'miller'). Obviously, this suffix served, for the most part, to create new words from the stems of nouns, which is confirmed by the materials of one of the oldest Germanic languages – Gothic. Compare, for example, *bôkareis* (der Schriftgelehrte), 'a scribe, one who is understood in the scripture' from *bôka* 'letter'; *wullareis* is 'a specialist in making wool' from *wulla.* In the Old High German language there were also words derived from the stems of nouns with the help of this suffix, for example: *ambahtâri* 'servant' from the *ambaht* 'service'; *fâtâri* 'tempter' from *fâra* 'temptation, danger'; *gartâri, gartinâri* 'gardener' from *garto* 'garden'; *lêrâri* 'teacher' from *lêra* 'teaching'; *mâdâri* 'harvester' from *mâd* 'harvests'; *scâhâri* 'robber' from *scâh* 'robbery'. Among the nouns there were nomina agentis) derived from the corresponding verbs, for example: *suonâri* 'judge' – *suona* 'court' – *suonen* 'judge'; *lêrâri* 'teacher' – *lêrà* 'teaching' – *lêren* 'teach', etc. This circumstance contributed to the formation of new nouns directly from the verbal bases. Thus, the meaning of the suffix itself was redefined; it began to express the creator of action, and not just an attitude to action. In the Old High German language a large number of nouns with this suffix are derived from the verb: *fiskâri* 'fishing' from *fiskôn* 'fish', *jagâri* 'hunter' from *jagôn* 'hunt', *heilâri* 'healer' from *heilen* 'heal', *helfâri* 'helper' from *helfan* 'help'. The new word-formation type, which was formed as a result of borrowing of the word-formation component was so productive that it began to supplant the old suffix *-n*, having been served then for the same purposes. Compare, for example, the Old High German – *helfo* 'helper' – *helfâri* 'one who helps', *nemo* 'taker' – *nemâri* 'one who takes', as well as the Middle High German – *geber* is 'one who gives'

widersacher 'an opponent' with the Old High German – *gebo* 'one who gives', *widersacho* 'an opponent'. From the old formations with *-n* in the Modern language only a few words have remained, for example, *der Bote* 'missioner' (the Old High German *boto* 'missioner'). This word-formation type retained its productivity nowadays, having for this the preconditions in objective reality. In the Modern German there are nouns in the meaning of nomina agentis almost derived from verbal bases (rarely from nominal ones, for example, *Künstler* 'artist', *Gärnter* 'gardener').

Often, the suffix *-âri* prior was preceded by any more ancient word-formation component; for example, such derivatives as *lugina* 'lie' – *luginâri* 'liar', *satal* 'saddle' – *satalâri* 'saddler', which contributed to the time of the process of redefinition of the bases and the isolation of modern suffixes *-ler* and *-ner*. Already in the Old High German period as a result of the stem redistribution, there is a suffix *-nari*, compare *gartinâri* 'gardener' from *garto* 'garden' (stem on *-n*) and *sculdinâri* 'debtor' from *sculda* 'debt'. As the analysis shows, there are no examples with the suffix *-lâri* in the Old High German language.

In addition to the suffix *-âri* in the Old High German language for the formation of nomina agentis were used the German suffix *-(i)l*, for example, *biril* 'carrier' from *beran* 'worn', *wibil* 'beetle' from *weban* 'weave', *wachtil* 'guard' from *wachten* 'guard'. However, as the analysis shows, the number of such nouns was small and gradually diminished in the process of historical development, ousting the formations on *-er*.

Derivatives with the instrumental suffix -il. The instrumental suffix *-il* was the most widely used in the Old High German language formations in the meaning of tools: *sluzzil* 'key' from *sliezen* 'to close', *zugil* 'leads' from *ziehen* 'to pull', *slegil* 'felled' from *slahan* 'beat, hit', *leffil* 'spoon' from *laggan* 'draw', *fezzil* 'bundles' from *fazzon* 'grab, skid'. In some cases, the instrumental suffix *-il* served for forming of nomina agentis: compare the Old High German *biril* 'bearer' with *berero* from *beran* 'bear', *tregil* 'carrier' from *tragan* 'carry'.

Derivatives with the suffix -unga. This suffix was widespread in all Germanic languages in the patronymic meaning: compare *Amalungi* (in Goths), *Carolingi* (in Francs). In the Old High German language this suffix was used precisely for the formation of abstract nouns of the female genus from verbal bases (renowned formations are rarely found). So, in poetry in Otfrid (9th century) it occurs in several cases as verbal nouns with a subject meaning: *manunga* 'reminder', *samanunga* 'collection'. The development of abstract nouns on *-unga* are most closely observed in the clerical prose of the 7th – 10th centuries in translations from Latin: compare *wirkunga* 'action' (Latin *operatio*), *zeigunga* 'definition' (latin *determination*), *sceidunga* 'division' (latin *division*), *heilagunga* 'sanctification' (latin *sanctification*). However, it should be noted that the most "nutritious" source for abstract units of this kind was a scientific prose: *betunga* 'request' from *betôn* 'to ask', *beitunga* 'expectation' from *beitôn* 'expect', *korunga* 'test' from *korôn* 'to test'; *scouwunga* consideration from *scouwôn* 'to consider'; *bezzirunga* 'improvement' from *bezzirôn* 'to improve'; wehsilunga 'change' from *wehsilôn* 'to change'; *zwîfalunga* 'doubt' *zwîfalôn* 'to doubt'.

This type of word-formation is still productive, having been used for many centuries to form a large number of nouns.

Derivatives with the suffix -ida. We find the suffix *-ida* in other Germanic languages, for example: Gothic – *iþa* (*háuhiþa* 'height'), Modern English *length, breadth, warmth, strength,* etc. Interestingly, that this suffix, which has become unproductive in Modern German and Modern English, is widespread in Modern Dutch, compare *diepte, stilte*, *warmte* and others. Already in the Old High German period derivatives with this suffix formed from the basics of adjectives and verbal bases were few, for example: *breitida* 'width', *ewida* 'eternity',

frewida 'joy', *reinida* 'purity', *salida* 'happiness'. In manuscripts that can be considered more consistent with live use (Otfrid, Tatian, Notker), their frequency of use is low. As it can be assumed, these derivatives were characteristic of certain language styles (religious and clerical prose). In Modern German there are a few remnants of ancient derivative nouns with suffix *-ida*: *Begierde* 'desire', *Freude* 'joy', *Zierde* 'adornment'. This suffix was superseded by the relatively 'young' suffixes *-heit* and *-ung*.

Derivatives with the suffix -heit. The suffix *-heit* belongs to 'young' suffixes that have evolved from independent words. In all Germanic languages we find the corresponding independent word meaning 'person', 'position', 'mode'. Compare, for example, Gothic *haidus* 'kind, way'; Old English *hád* 'state, genus, property, species', Old Scandinavian *heiðr* 'honour'; Old High German *heit* 'person, gender, rank, condition'. As a means of generating abstract nouns, this suffix evolves from an independent word only in West Germanic languages. Among the words formed from the basis of nouns are those whose first part denotes any person, for example: *deganheit* 'valor', *diubheit* 'theft', *kindheit* 'childhood', *narraheit* 'folly', and so on.

However, the most prevalent in the Old High German language were derivative nouns with the suffix *-heit*, formed from the basics of adjectives. In combination with the basics of adjectives *-heit* becomes the most common means of the formation of abstract nouns and competes with older formations with the suffix *-î*, for example: *armheit* 'poverty', *bitterheit* 'bitterness', *bôsheit* 'anger', *frîheit* 'freedom', *kuonheit* 'courage', *tumbheit* 'foolishness', *wîsheit* 'wisdom'. The valency specificity of the suffix *-heit* is to combine its potency with the derivative bases of adjectives, in particular, with adjectives that have the suffixes *-ag, -îg* due to this in the Middle High German period a new morpheme – the suffix *-keit* is singled out.

Derivatives with the suffixes -scaf, -scaft. As the analysis testifies, the 'young'suffix *-scaf* is used in all German languages not only as an independent word, but also as derived nouns from this basis, as well Gothic *gaskafts* 'creation'; Old High German *giscaft* 'creature, form, state, fate'; Old English *gesceaft* 'creation, talent', occurs several times in texts in the meaning of an image, property, as well as verbs *scephen* and *scafan* 'create', adjective *unscaf* 'unusual, abnormal', *scafalos* 'shapeless, ugly'. The original meaning of the suffix *-scaf* was, obviously, 'an image, a property' (compare with Modern German *Beschaffenheit* 'feature', 'characteristic'). As to the form of this suffix, it should be noted that up to the IX century it acts in the form of *-scaf*. From the IX century the form *-scaft* begins to compete with it, which is genetically derived from the ancient abstract formation with the suffix *-ti* – Old High German (*gi*) *scaft* 'creation, a creature' that eventually replaced the first one.

Like *-heit, -scaft* was joined the basics of nouns and adjectives, but the number of derivatives of the last kind is negligible, for example: *fiantscaf* 'enmity', *holdscaf* 'affection, friendliness'. The differential sign from *-heit* in this case is that derivatives with *-heit* denote usually a specificity or property, derivatives of *-scaft* point to activity, state, behavior, or attitude. A significant number of nouns created using the suffix *-scaf* is characterized by the value of collectivity, for example: *bruoderscaf* 'brotherhood', *geselliscaf* 'society', *kunniscaf* 'generation'.

Derivatives with the suffix -tuom. The 'young' suffix *-tuom* as a corresponding word was available in all German languages and was encountered in self-use, for example: Gothic *dôms* 'judgment'; Old Scandinavian *dómr* 'court, decision'; Old English *dōm*; Old High

German *tuom* 'custom, power, domination', compare also with Old Indian dhāman 'place, motherland, power, honor, court', etc.

A set of derivative meaning with the suffix *-tuom* is different in its diversity. Derivative nouns with the suffix *-tuom* can denote the state, custom, often they are close to the derivatives of *-heit* or *-scaft*. Usually the suffix *-tuom* is valent to the basics of nouns, very rarely from the adjectives, for example: *alttuom* 'age', *arzetuom* 'art of medicine', *diornutuôm* 'innocence', *heidantuom* 'paganism', *kaisartuom* 'kingdom', *rîhtuom* 'wealth'.

3.2 *Adjective derivation in the Old High German language*

Derivatives with suffix -isc. This is a very old suffix, which occurs in other Indo-European languages, compare Greek ιχος *(-ikós)*, Latin *-ikus*. The suffix indicates origin, as well as belonging to something. With this suffix from the names of living und unliving objects formed many adjectives, compare *diutisc* 'folk' from *diot* 'people', *himilisc* 'heaven' from *himil* 'sky', *irdisc* 'earth' from *erda* 'earth', *kindisc* 'young, gentle' from *kind* 'child', and so on. This suffix is usually used to create adjectives from the names of areas or peoples: *Rôm* 'Rome' – rômisc, *rumisc* 'Roman'; *Franco* 'Franc' – *francisc* 'Franc'; *Walah* Celtic – *walahisc* 'Celtic', etc. It is very stable and therefore has survived to this day, expanding the sphere of its application, compare, for example, the formations from own names: *bayerisch* 'Bavarian', *goethisch* 'belonging to Goethe's pen'.

Derivatives with the suffixes -ag, -îg (modern *-ig*). In the Old High German language this suffix was one of the most used. Adjectives derived from the noun stems with the help of this suffix meant either any connection with the phenomenon, which called the noun or pointed to a property characteristic of the subject or concept, for example: *frost – frostag* 'frosty'; *lust – lustag* 'joyful, cheerful'; *muot – muotag* 'courageous'. A small number of adjectives is also formed from the basics of other adjectives, for example*, reht – rihtîg* 'right'.

Among the adjectives formed from the nouns of action there were those, in which the link to the verb was clearly traceable. This feature served as the basis for the formation of adjectives with this suffix directly from the verbs, for example: *birîg* 'fruitive' and *beran* 'to bear, to give birth'; *firsûmîg* 'careless' and *firsûmen* 'to miss'; *slâfag* 'sleepy' – *slâf* 'dream' – *slâfan* 'to sleep'. Some adjectives could be formed from particles and adverbs, for example: *hiutu* 'today' – *hiutìg* 'today'; *ofto* 'often' – *oftîg* 'frequent'.

The suffix *-îg* is especially often encountered in compoud derivative words (Zusammenbildungen), that is, in the method of creating new words, which combines compounding of the stems and derivation, for example: *filo-spräch-îg* 'boastful'*; -jâr-îg in zwî-, drî-, fimfjârîg* 'two-three-five year old'*, vridomachîg* 'peaceable'. This suffix is characterized by persistence and eventually displaces the suffixes *-oht, -aht* earlier equivalent in use.

Derivatives with the suffix -lîch. Like nouns, adjectives in the Old High German language form a new system of suffixes with abstract meaning through the formation of words with primordially independent words. So, the suffix *-lîch* comes from Gothic *leiks*, Old High German *lîh* with the meaning 'body' (Leib, Körper). Along with the noun *-lîh* were: a homonymous adjective with a meaning 'similar, equal, suitable', verbs *lîchên* 'like', *lîchîson* 'to compare' and a noun with an abstract meaning *analîchî* 'similarity'. Compare also Gothic *galeiks*, Old High German *gilîch* 'equal, identical'.

The question of which part of the language was the second component of compound words with *-lîch* a noun or adjective is controversial. Without a doubt, we can only say that these were compound words such as Bahuvrihi, for example, Gothic *waira-leiks* courageous is

interpreted as 'the one that has a man's behavior'. From this meaning thereafter follows a more abstract meaning of similarity in general; compare derivatives such as *friuntlîch* 'friendly', *gastlîch* 'hospitable', *wiblîch* 'feminine', or relevance to what is called the basis from which the adjective is formed, for example: *fridulîch* 'peaceful'; *scantelîch* 'disgraceful'. There are also derivatives from the basics of adjectives, for example: *langlîh* 'long', *suozlîh* 'sweet'. Simple adjectives and derivatives from them with the suffix *-lîh* at that time correlated with each other, quite possibly as a Modern German *gut* 'good', on the one hand, and *von guter Art* 'of good kind' or *gutartig* 'good-natured'on the other, that is, they differed stylistically. Essentially their meaning was identical, but in the adjective with the suffix *-lîh* there is a tendency to use with abstract nouns. Subsequently, language carries a clear differentiation in meaning and in use (for example, modern *arm* 'poor'– *ärmlich* 'poorly', *alt* 'old' – *ältlich* 'elderly', etc.). The correlation between some derivative adjectives with both a noun and a verb (*klagalîh* 'pity', *klaga* 'pity', *klagôn* 'to pity') contributes to the emergence of subsequent periods of diachrony of German derivatives directly from the basics of verbs, for example: *begreiflich* 'understandable' – *begreifen* 'understand', *erfreulich* 'joyful' – *erfreuen* 'delight', etc. (Filicheva 2003: 121).

Derivatives with suffix -haft. The suffix *-haft* (Gothic adjective *hafts*, Old High German *haft* extended form *haftig*) comes from the verb Gothic *hafjan*, Old High German *heffen* and is used in the meaning of 'the one who has', 'the one who owns'. Compare the Old High German language *minnihaft* 'minimal'; the New High German language *dauerhaft* 'lasting' expanded form *teilhaftig* 'partial', *wahrhaftig* 'truthful', etc. Along with this, the suffix in the Old High German language and in the Middle High German language was also a homonymous adjective with the meaning 'bound, connected' and the noun *haft* 'captured, arrested'; compare, for example, Latin *captus* from *capio*. Perhaps the initial meaning of the suffix was 'encumbered, equipped with something', for example *namahaft* 'famous, known', *scamahaft* 'shy', *sigihaft* 'victorious'. Some derivative adjectives correlate both with nouns and with verbs, for example, *lôbhaft* 'praiseworthy' – *lôb* 'praise' – *lôbôn* 'praise', *mezhaft* 'shy, moderate' – *mez* 'measure' – *mezzan* 'measure' that later serve to form adjectives directly from verbal bases, compare, for example, modern *schmeichelhaft* 'flattering' – schmeicheln 'flatter', *zaghaft* 'timid' – zagen 'hesitate', etc. The investigated suffix not only survived to this day, but is also quite productive, for example: *fehlerhaft* 'faulty', *krankhaft* diseased', *naschhaft* 'greedy'.

Derivatives with the suffix -bâri (expanded form *-bârig*). The suffix *-bâri* comes from the verb *beran* with the meaning of 'bearer' and, as you can suppose, functioned as an independent word, compare Old High German *unbâri* 'fruitless' (literally, 'one that does not bear'), *bârig* 'fruitful'. In compound words, this suffix was used in the meaning of 'bearer', 'causing', for example, Old High German *fluohbâri* is 'hated' (the one bearing the curse), *trostbâri* 'comforting' (the one that carries the fun), *dankbâri* 'thankful' (literally, the one that is thankful). Some derivatives correlate with the verb and noun, for example, *dankbâri* 'thankful' – *dank* 'thank', *dankôn* 'to thank'. The group of verbs is most productive in the New High German period, compare modern: *ausführbar* 'executable' – *ausführen* 'executre', *entzündbar* 'inflammable' – *entzünden* 'inflame', *trinkbar* 'drinkable' – *trinken* 'drink', etc.

Derivatives with suffix -sam. The suffix *-sam* corresponds to the same pronoun as the adverb, *sam*, *samo*, as well as, for example: Gothic *same*, Old Scandinavian *samr,* Modern English *same*. Initially, the derivatives indicated conformity, similar to that expressed on the basis, and subsequently becomes a means of indicating the characteristic properties, abilities, inclinations, for example, *arbeitsam*. Some derivative adjectives correlate both with the noun

and with the verb, for example: *heilsam* 'healing' – *heil* 'healing' – *heilen* 'heal'; *sorgsam* 'caring' – *sorga* 'care' – *sorgen* 'to take care (care)', etc. In Modern German there is a large number of verbs that denote the ability to act, called the basis (compare modern: *folgsam* 'obedient'*, schweigsam* 'taciturn').

3.3 *Verbal derivation in the Old High German language*

Prefixation is a word-formation method most characteristic for the system of verb, while suffixation due to its classification function – a noun. According to the origin ancient verbal prefixes *bi-*, *gi-*; *int-*, *ant-*; *ar-*, *ur-*; *far-*, *fir-*; *zi (r)-*, *za (r)-*, *zur-* come from prepositive verbal adverbs, for the most part, locative semantics. The prefixes *bi-*, *ir-*, *ar-*, *ur-* and also *far-*, *fir-* in the Old High German language still correspond to prepositions that have evolved also from the corresponding adverb, for example: *bî-* by, with, around; *ur-* from; *furi* and *vora* in front of. The rest of the prefixes in the Old High German language had no correspondence in the form of independent words.

In the Old High German language these prefixes were used, mostly, to modify the meaning of verbs already available in the language, for example: *bintan* (*pintan*) 'bind, skid', *firbintan* 'to join', *far-bioton* (*firbiotan*) 'prohibit, disallow', and so on. In the process of further development of the German language, they acquire the function of 'verbalization of nouns' and become one of the most important means of enriching the vocabulary of the language with verbal innovations, stems for which not only verbs but also nouns served, for example, *Anspruch* 'claim' – *beanspruchen* 'to claim', *Gift* 'poison'– *entgiften* 'detoxify', etc. (Filicheva 2003:127).

3.4 *Composite derivation as the most ancient productive word-formation process*

The ability to combine with each other the stems already existing in the language for the expression of any new notion was characteristic for the most ancient Indo-European languages from ancient times. However, one should say that in the Indo-European languages this ability developed in different ways. Thus, in Latin the number of complex words was insignificant, while in the Germanic languages, in particular in the German language, the vocabulary is enriched mainly by composition.

The oldest way of composition is considered to be the stem composition, in which the first part uses a pure basis without indexes of a case and a number. A similar type of composition is rooted in the distant past, when the flexion was not yet developed and when the simple arrangement of the stems served as a means of their combination in the sentence. These archaic combinations finally turned into compound words with the appearance of flexion, because their feature was the lack of flexion in the first component. This type of word-formation, called by Jacob Grimm *eigentliche Composita* (complete composites), could exist in pure form only when there were clearly different types of stems, which made it possible, without much effort to distinguish the necessary basis of each noun.

Complex combinations are widely represented in the Old High German language, for example: *erdrîhhi* 'kingdom on earth', *rouchvaz* 'thurible'. In addition, in the Old High German language another kind of composition, which J. Grimm gave the name *uneigentliche Composita* (incomplete composites) was also presented. Complex words in this case arose originally from the combination of such words, between which the syntactic links found their expression in the case endings. Compare, for example: *donaræstag* 'Thursday', *Frankonofurt*

'Frankfurt'. The development of this type of composition took place along with the restructuring of the nominal system declination. In addition, the former flexion was reinterpreted as a connecting element (*Sonnenstrahl* 'sunray'). This contributed to the emergence of many formations by analogy. The last type of composition prevails in the Modern German language, which was in the Old High German language at the stage of formation.

So, it should be noted that the degree of the word-formation system development in the Old High German period is evidenced by the fact that the word-formation system of the VIII–XI centuries practically did not have its own word-formation models and word-formation means and as a result of the fact that the Old High German language was greatly influenced by the Greek and Latin languages, borrowed word-formative elements. Thus, the most word-formation models and means of this period are tracing calks from Latin or Greek, which did not allow to develop properly the German word-formation elements.

4. Conclusions and perspectives

Thus, the description of word-formation processes in the Old High German language from the standpoint of evolutionary linguistic synergetics shows that the word-formation system manifests the property of fractality. However, it should be emphasized that the fractality in the word-formation we see

> not in the use of certain suffixes or prefixes for the formation of new words, nor even in the simple coexistence of stems. These are all – mechanisms, models, schemes, 'trajectories' that contribute to the formation of new units. Fractality in word-formation is revealed in 'unpacking' of the word, deepening in the history of its appearance becomes clear that it is complicated and includes as components sometime independent words transformed as a result of interaction with other language components. It turns out that the inner limits of the word (the so-called morphemic seams) are mobile, dynamic and that any increase in the scale of consideration opens up new secrets: auxiliary inventory in the form of prefixes, suffixes and connecting elements, one that today can not be used independently, but only is a combinative part of the basic unit, which in the distant (or perhaps not so distant) past was full-valued, full-fledged, independent word (Dombrovan 2013: 302).

Results of the analysis of word-formation changes in the system of the Old High German language in the aspect of evolutionary linguistic synergetics contributes to the construction of a synergetic model of the German word-formation development as a self-organizing, complex, open, nonlinear macrosystem and outlines new perspectives for the study of historical word-formation dynamics.

References

Bronnik, Larisa. 2012. *Language dynamics in discourse: cognitive-synergistic approach*. Moscow: Moscow Military University. (Doctoral Thesis.)

Dombrovan, Tetiana. 2013. *A synergetic model of the English language development.* Odessa: Odessa National University named after Ivan Mechnikov. (Doctoral dissertation.)

Dombrovan, Tetiana. 2018. *An introduction to linguistic synergetics*. Cambridge: Cambridge Scholars Publishing.

Filicheva, Ninel'. 2003. *History of the German language*. Moscow: Publishing Center 'Academy'.

Haken, Herman. 2000. *Information and Self-organization: A Macroscopic Approach to Complex Systems*. Berlin: Springer-Verlag.

Keller, Rudi. 1994. *On Language Change: The Invisible Hand in Language*. London: Routledge.

Kushnina, Lyudmila. 2004. *The interaction of languages and cultures in the translation space: a gestalt-synergistic approach*. Per'm State University. (Doctoral dissertation.)

Moiseeva, Irina. 2007. *Synergetic model of the text formation*. Chelyabinsk: Chelyabinsk State University. (Doctoral Thesis.)

Myshkina, Nelli. 1999. Text linguistic dynamics: a contradiction-synergistic approach. Perm: Perm State University.

Oliz'ko, Nataliya. 2009. *Semiotics-synergetic interpretation of the features implementation of the categories of intertextuality and interdiscursivity in postmodern artistic discourse*. Chelyabinsk: Chelyabinsk State University. (Doctoral Thesis.)

Pikhtovnikova, Lidiia S. 1999. *Synergy of the fable style: a German rhymed fable in the XIII – XX centuries*. Kharkiv: Bisnes Inform.

Piotrovskiy, Raymond. 2006. *Linguistic synergetics: initial positions, first results, prospects*. St. Petersburg: St. Petersburg State University (Faculty of Philology).

Ponomarenko, Evgeniya. 2010. *Linguosynergetics of business communication from the standpoint of the competence-based approach (based on the English language*. Moscow: MGIMO-University.

Shchyhlo, Larysa. 2017. Language as an object of synergetic studies. In Betil'mirzaeva, Maret, Dreval', Irina, Mishenina, Tetiana & et. al., *Science and innovation in the modern world: philosophy, literature and linguistics, culture and art, architecture and construction, history*, 81 – 89. Odessa: Kuprienko SV. doi:10.21893/978-617-7414-05-5.0.

von Humbolt, Vilhelm. 1964. *On comparative study of languages in relation to different stages of their development. Part I*. Moscow: Education.

von Humbolt, Vilhelm. 1984. *About the influence of different character of languages on literature and spiritual development*. Moscow: Progress.

Larysa Shchyhlo
Department of German Philology
Sumy State University
Ukraine
l.schiglo@gmail.com