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Abstract

This article presents a brief survey of the development of Czech word-formation theory (from the oldest grammars up to contemporary Czech linguistics) and describes and illustrates the main word-formation processes. As an inflectional language Czech has extensive derivational possibilities and a richly developed word-formation system, making use chiefly of derivation, less frequently of composition.

1. Introduction

Studies in Czech word-formation have a relatively long and rich tradition. Derivation is the most productive means of forming complex words in Czech, and it is closely intertwined with inflectional morphology. Derivational affixes (mainly the suffixes) are connected with certain morphological properties of the words such as gender of nouns (e.g., -nik, -ak (masc.), -k-a, -ic-e (fem.), -dl-o, -stv-i (neuter)) and verbal aspect. In derivation without derivational affixes (i.e. conversion), a concomitant change in the inflectional paradigm can assume the function of signaling a derivational category (e.g., trn 'thorn' $\rightarrow trn-i$ 'thorn bush, brier wood' with the ending -i expressing collective meaning in combination with nominal bases). Derivation and inflection take place chiefly at the end of words, both processes are frequently accompanied by similar sound alternations.

The interdependence of derivational and inflectional morphology has been reflected in the history of Czech linguistics by, among other things, the fact that word-formation is usually included under the heading of grammar (Trávníček 1951; Havránek and Jedlička 1981; Dokulil et al. 1986; Čechová 1996; Karlík, Nekula and Rusínová 2001; Šmilauer 1971 was originally intended to be part of the grammar which Miloš Weingart prepared in the 1930s). There are only few descriptions in which word-formation is included under lexicology (Hauser 1980). By way of introduction we provide a brief survey of the development of studies in Czech word-formation. (For details from the history of Czech linguistic Bohemistics see Karlík et al. 2007: 249–280.)

An awareness of the semantic and formal connection of words, of word-composition, the competition between expressive and semantic means and the need for a formulation of the rules for the formation of new words has gradually emerged in Czech linguistics. Thus, in the first Czech grammar, the so-called *Náměšťská mluvnice* (Optát, Gzel and

Philomates 1533, in 1571 arranged and extended by Jan Blahoslay; Čejka, Šlosar and Nechutová 1991) there appear first notes on word-formation (offered chiefly in the form of stylistic explanations). A contribution to the development of word-formation theory was made by Vavřinec Benedikt of Nudožer in his grammar of 1603. He was the first to describe suffixes as word-formation means (he did so in the explication of the etymology of words, elsewhere he offered notes on word-formation in connection with the declension of words). The most valuable contribution to word-formation in its time, however, was provided by Václav Jan Rosa in his Čechořečnost, seu Grammatica linguae Bohemicae (1672), who placed word-formation mainly in the chapters "De syntaxi" and "De etymologia" and complemented some of his explications of word-formation by remarks on declension. Rosa did not always define the direction of the word-formation process correctly, in fact he did not attempt to do so. What is valuable in his work is primarily the fact that he a) arrived at the complementary character of the distribution of some suffixes (-stvi, -stvo; -ec, -ik), b) divided the compounds according to the word class of their parts, and c) was the first to take into consideration "compounds" with a "prefix" (zástolí 'feast; lit. behind-table-NOMINAL.INFL', podhoří 'foot of the mountain; lit. below-mountain-NOMINAL.INFL'). Another grammar from the pre-Dobrovský period is that by Jan Václav Pohl (1756). One of the word-formation topics in this grammar is gender alternation in nouns (medvěd 'bear' - medvědice 'she bear').

Word-formation as an independent discipline with a new conception (based mainly on the recognition of the structure of forms) was introduced by Josef Dobrovský in his German-Czech dictionary (1802–21), and the Czech grammar (1819 [1809]). His article on word-formation had been originally attached to Tomsa's dictionary of 1791 and became part of the first edition of his grammar; another work Die Bildsamkeit der slavischen Sprache [(Word-)Formation of the Slavic Language] was published in 1799. Dobrovský succeeded in distinguishing the basis of the inner structure of words, in that he proceeded from the roots of words and ascribed to them a combinatory character typical for individual types of words. By understanding the inner structure of words, Dobrovský laid the foundations for the scholarly word-formation of Czech; later positivist and structuralist studies were based on his work. Dobrovský's explanation of the incorrectness of arbitrary word-formation were also of considerable practical effect, especially for the translation of German compounds (which was customary at that time). He rightly pointed out that it was necessary to proceed from the "natural", indigenous features of Czech, its scientific description, and the knowledge of the structure of contemporary words, including colloquial ones. These ideas are substantial and topical to this day.

Dobrovský was followed by Jan Gebauer. In his *Mluvnice česká pro školy střední a ústavy učitelské* [Czech Grammar for Secondary Schools and Teachers' Institutes] (1901), he similarly declared that the choice of the means of expression should be in line with the "language-creating spirit of the nation". According to Gebauer, the source of changes in the language is man's psychic activity; the need for new name-giving is extra-linguistic.

František Trávníček provided a synchronic description of word-formation in his *Mluvnice spisovné češtiny* [Grammar of Standard Czech] (1948). He systematically described the word-formation elements (roots, stems, affixes, though he did not regard the formation of stems as the core of word-forming processes). Trávníček placed his findings between the chapters on phonetics and morphology, at the same time trying not to sever word-formation from lexicology. Therefore, the introduction to the chapter on word-

formation provides a general characteristics of words and their denotative, expressive and grammatical meanings. He differentiated words that are etymologically related (forming a kind of word family, though no longer dependent on one another), from dependent (derived and base words) and etymologically primary words.

Vladimír Šmilauer, on the other hand, did not give a historical overview in his *Novo-české tvoření slov* [Contemporary Czech Word-Formation] (written 1937/38, published 1971). He proceeded from the "idea" (thought) and emphasized the creative aspect of naming. A novelty, and a meritorious one, is the inclusion of collocations (multi-word expressions) into his word-formation.

A fundamental and ground-breaking work of modern Czech word-formation theory is Miloš Dokulil's also internationally known and recognized *Tvoření slov v češtině*. Vol. 1: Teorie odvozování slov [Czech Word-Formation. Vol. 1: The Theory of Word-Derivation] (1962) and Tvoření slov v češtině. Vol. 2: Odvozování podstatných jmen [Czech Word-Formation. Vol. 2: Derivation of Nouns] (Daneš, Dokulil and Kuchař 1967). Dokulil developed the methodology of word-formation research and more consistently and precisely revealed the regularities of word-formation processes and relations. Being aware of the genetic aspect of word-formation, he presented a functional approach – by linking word-formation with onomasiology (in an entirely synchronic framework). Dokulil showed that the linguistic equivalent of a concept is not exclusively the word, but the denomination. In this manner he linked up with Mathesius's understanding of denomination (Mathesius 1947), made it more profound and thus enabled the further development of onomasiology. Particularly important in this connection is Dokulil's definition of onomasiological categories. He explained them as "types of the inner structuring of the concept, in view of its expression in the given language [...], i.e. as basic conceptual structures establishing the foundations of naming activity in the given language" (Dokulil 1962: 225). Dokulil's definition and systematization of word-formation means, the definition of some concepts (such as the word-formation process, type, category and formant, productivity, etc.) are also of importance for modern word-formation. His theoretical explications were made more profound in Daneš, Dokulil and Kuchař (1967) with the following hierarchy of description: word-formation procedure, word-formation category, word-formation types.

The development of post-Dokulil word-formation theory to the present shows mainly a continuation in the "traditional" line of research along the intentions of structuralist linguistics. At the same time it has been shown that the study of onomasiological and word-formation structures can serve the discovery and revealing of cognitive processes – the cognitive approach confirms the validity of Dokulil's theory of onomasiological categories (for details see Bozděchová 2009).

2. General overview

In the sense of structural typology, represented in Czech linguistics by Skalička (1951) in the framework of the structuralist paradigm of the Prague linguistic circle, and further developed and complemented especially by Popela and Sgall (see Lotko 1999), Czech represents an inflectional language. Because of its extensive derivational possibilities, it can form large word-families.

Czech makes use chiefly of derivation (prefixation and suffixation), less frequently of composition. From its inflectional character simultaneously follows a limited use of affixless derivation, especially conversion in its narrower sense (see Dokulil et al. 1986: 201–202). In nominal word-formation, use is made of several hundreds of suffixes, with the possibility to regularly derive verbal nouns, which considerably increases the number of nouns in general. Prefixation is most frequent in deverbal derivation. A typical feature of Czech is the high degree of functional homonymy and the polysemy of affixes. As Čermák (2010: 195) points out, there is an average of ca. 31 derivatives of one root. Whereas nominal roots are most numerous, most of the derivatives are linked to verbal roots. The most frequent nominal roots (30) each form on average 50–100 derivatives and compounds. Several word-formation types are characterized by a high degree of regularity which can be compared to that of grammatical morphemes, for instance, the derivation of female nouns from masculine nouns, especially designations of professions, titles and surnames. For pragmatic purposes Czech extensively uses the category of diminutives; their number is one of the highest along the Slavic languages.

Another typical feature of inflectional languages is the frequency of morphonemic alternations. Compared to Polish, for instance, Czech is richer in alternations in wordformation (and similarly also in morphological paradigms), see Lotko (1999, 2009: 11). The higher degree of inflectional features, i.e. the obligatory expression of lexico-grammatical meanings by the aid of word-formation affixes, is also reflected in the perfectivation of verbs of foreign origin (Cz. organizovat ipf. vs. z-organizovat pf. 'to organize', kvalifikovat ipf. vs. do-kvalifikovat pf. 'to qualify'). To a different degree, this takes place in all Slavic languages, but most intensively in Czech (see Lotko 1999, 2009: 12; in standard Russian, for instance, numerous loan verbs are biaspectual, i.e. depending on the context, they can express the meaning of both aspects without formal differentiation). The typological profile of Czech also causes a certain limitation on the influx of foreign words into Czech and prevents an excessive acceptance of ready-made namings from foreign languages. Admittedly, this feature of Czech is somewhat weakened in the newest vocabulary, chiefly under the influence of extra-linguistic factors (internationalization of its vocabulary). At the same time, the use of foreign, especially international, word-formation elements (neoclassical word-formation) is traditionally characteristic or dominant for certain word-formation types and contents, cf. the naming of trends and movements and their members (panslavismus 'panslavism', kapitalista 'capitalist') or the expression of augmentation/intensification (superkvalita 'super-quality', supravodivý 'super-conductive', hyperkorektnost 'hyper-correctness').

In Czech, as already mentioned, derivation plays a far more important role than composition. There exist close mutual relations of word-formation and inflectional morphology, yet there are other ways of word-formation combining syntactical and morphological means (composition in the narrower sense of the term, and juxtaposition whose means are very close to those on the syntactical level of language), and so-called semantic derivation (metaphor, metonymy). The combination of derivation and composition is also relatively frequent in Czech word-formation. There are two main types of compounds, traditionally distinguished and referred to as compounds proper and improper, the former being more common and frequent. The difference between them consists in the fact that the compounds proper are entirely independent of the (possibly) coexisting collocations unlike improper compounds, which still distinctly refer to the collocation from which

they have originated (differing from them only by the presence of the unifying word stress and their compound spelling).

In Czech, word-formation by derivation and composition is clearly differentiated from established multi-word expressions/units (collocations). These include above all terms and phraseologisms; as a rule these are two-word, sometimes multiple-word namings, nominal and verbal, with a determinative relationship between the members. The most frequent structural types include A+N (*volný čas* 'free time', *kočka domácí*, with the adjective postposed, 'domestic cat'), N+N (*matematik analytik* 'mathematician analyst', *hod oštěpem* 'javelin throw; lit. throw (n.) + javelin-INSTR'), V+N (*brát lék* 'to take a medicine', *dávat pozor* 'to pay (lit. give) attention, mind').

Although synthetic, morpho-suffixal word-formation prevails over morpho-syntactic word-formation, there exists a very productive process of univerbation. In Slavic studies this term is traditionally used for a combination of ellipsis and affixation of an underlying multi-word expression (see also article 42 on multi-word expressions and univerbation in Slavic). It is primarily a means of linguistic economy in spoken language, frequently accompanied by the loss of the official character of the designation, or by the development of a pragmatic feature, e.g., informality ($kruhov\acute{y}$ objezd 'roundabout traffic; lit. circle-Rel.ADJ. bypass' $\rightarrow kruh\acute{a} \acute{c}$ 'round-about', $mikrovlnn\acute{a}$ trouba 'microwave; lit. microwave-Rel.ADJ tube, oven' $\rightarrow mikrovlnka$ 'id.').

In the last few decades we witness a significant growth of compounds, especially in the formation of nouns and adjectives. According to Lotko (2009: 28), 27.29 % of the neologisms registered in the dictionary Nová slova v češtině [New Words in Czech] (Martincová 1998) are compounds. Important factors are internationalization and intellectualization, the attempt at greater explicitness of expression, e.g., in specialized communication (see also article 127 on word-formation and technical languages), the enhancement of expressivity, uniqueness and topicality in artistic texts. Much as in other Slavic languages hybrid compounds are productive and frequently used in contemporary Czech: 75% of 76 root morphemes listed as entries in Nová slova v češtině are morphemes of foreign origin (cf. Lotko 2009: 28, referring to Komárek 1999). As in other Slavic languages, they convey typologically foreign, especially Anglo-American elements and cause typological changes through increased analytic features. At the wordformation level, the changes are attested mainly by analytical constructions (for instance, compounds without linking vowels, such as web server). Moreover, the element web in this designation is regarded by some Czech linguists as an "analytical, indeclinable adjective" in contrast to webový (relational adjective) server (see also article 43 on compounds and multi-word expressions in Slavic, section 4.3). Such constructions are represented by combinations of international and domestic elements, as in the following most frequent types:

- 1. Multi-word denominations with a preposed indeclinable attribute (see above) (web server 'web server', IT specialista 'IT specialist');
- 2. Hybrid compounds (vitamín D-dependent);
- 3. Derivatives from abbreviations (*SMSkování* 'SMS sending; lit. SMS-ACTION', *Djovat* 'to be a DJ', *V.I.P.ky* 'VIP women; lit. VIP-FEM.PL');
- 4. New compounds, including one-letter and numeric elements (3D animovaný snímek '3D animated picture', software engineer J2EE). They are found chiefly in specialized and journalistic expressions (for greater details, see Bozděchová 2010a, b; see also article 127 on word-formation and technical languages).

3. Composition

In Czech, composition represents, alongside derivation, the second main type of word-formation. In principle, a distinction is drawn between the processes of proper (= pure) composition and of synthetic (= combined) composition (using affixes along with word stems). These two types are significantly different, especially as to the following aspects: their motivation, onomasiological structure, and the character of composition. In general, synthetic (combined) composition is far more frequent than proper composition.

Synchronic description and classifications of compounds are usually based on a) their form/structure; see, e.g., Dokulil et al. 1986: proper = pure composition, synthetic = combined, complex composition, i.e. combination of composition and derivation or conversion, and juxtaposition, or b) the semantic-syntactic relation between the components (cf. Šmilauer 1971; Bozděchová 1994: determinative and copulative compounds). Determinative compounds can be word/stem compounds (e.g., čtvrtrok 'quarter of a year; lit. quarter-year', G. Vierteljahr), or synthetic compounds, i.e. combined with affixation (e.g., hrom-o-bit-i obsolete 'thunderstorm; lit. thunder-o-strike-ABSTR', celo-svět-ov-ý 'world-wide; lit. whole-o-world-ADJ'). The semantic relation between the components of copulative compounds is coordination, e.g., jih-o-východ 'South-East', česko-anglický 'Czech-English'. Proper and synthetic compounds most frequently have the linking vowel -o-, rarely -i- or -e-/-ĕ- (ledoborec 'icebreaker', vědecko-fantastický 'sci-fi', vlastivěda 'national history; lit. homeland-science', světlezelený 'light green'). The distinction between proper and synthetic compounds in some nouns depends on the interpretation of their syntactic base: časoměřič 'timekeeper' – either as composed from čas 'time' + měřič 'keeper' or as composed and derived from the phrase ten, kdo měří čas 'someone who measures time'. "Improper compounds" are formed by juxtaposition (okamžik 'moment; lit. oko-GEN 'eye' + mžik 'blink (of an eye)', G. Augenblick, znovuotevření 're-opening; lit. newly opening', pravděpodobný 'probable; lit. truth-DAT-similar', důvěryhodný 'trustworthy; lit. trust-GEN-worthy').

Determinative compounds are predominantly represented by nouns and adjectives, less often by numerals, adverbs or verbs. Copulative compounds and juxtaposition are more frequently represented by adjectives than by nouns.

A traditional domain of compounds is specialized communication and public texts; at the moment, compounds are also more frequently penetrating into literary texts and common communication. Alongside domestic formations, compounds are taken over and formed with foreign elements (especially international, of Graeco-Latin and, more recently with growing frequency, of English origin), traditionally mainly in terminology. Increasing productivity is exhibited, also outside specialized language, by hybrid formations.

3.1. Nominal compounds

3.1.1. Determinative compounds

Nominal determinative compounds (including numerous calques) name similar conceptual areas as derived nouns (see section 4.1), including persons, means, actions, bearers

of properties, etc. (národohospodář 'national economist', elektroměr 'electricity meter', rukopis 'hand-writing', myšilov 'mouse catcher'); compared to derivatives, however, compounds reflect the onomasiological structure more explicitly (Bozděchová 2013, 2014). The most important and most frequent structural types are the following:

a) Compounds proper

A+N: černozem 'black soil', novostavba 'new building', velkoodběratel 'wholesale customer; lit. big-customer', malorolník 'small farmer';

N+N: *jazykověda* 'linguistics; lit. language-science', *rybolov* 'fishing; lit. fish-catching';

Num+N: dvojhlas 'two-part singing, duet; lit. two-voice', půlhodina 'half-hour';

Pron+N: samohláska 'vowel; lit. self-sound', všelék 'cure-all; lit. all-medicine';

b) Synthetic compounds: neither the combination of the first two components nor the second component + suffix (or a result of conversion) exist as independent words (see also article 33 on synthetic compounds in German);

N+V+suff: *roman-o-pis-ec* 'novelist; lit. novel-*o*-write-AGENT', *moř-e-plav-ec* 'seafarer; lit. sea-*o*-swim-AGENT' (composition + suffixation);

pivovar 'brewery; lit. beer-o-brew-0', zpravodaj 'reporter, correspondent; lit. news-o-give-0', dějepis 'history; lit. history-e-write-0', plynovod 'gas pipeline; gas-o-conduct/convey-0' (composition + conversion);

Adv+V+suff: *dalekohled* 'binoculars; lit. far-see-0', *pravopis* 'orthography, spelling; lit. correct-o-write-0' (composition + conversion);

A+N+SUFF: *such-o-zem-ec* 'landsman, mainlander; lit. dry-*o*-land-PERS', *vysokopecař* 'furnace worker; lit. high-*o*-stove-PERS' (composition + suffixation);

zlatohlav 'gold brocade; lit. gold(en)-*o*-head-Ø' (composition + conversion = exocentric compound);

N+N+suff: *nos-o-rož-ec* 'rhinoceros; lit. nose-*o*-horn-suff' (composition + suffixation);

Num+N+suff: *čtyřstěn* 'tetrahedron; lit. four-wall-Ø', *dvouverší* 'distich; lit. two-line-INFL' (composition + conversion).

3.1.2. Copulative compounds

Copulative compound nouns are mainly specialized terms, e.g., *lesostep* 'forest-steppe', *jihozápad* 'South-West'.

3.1.3. Neoclassical compounds

Many neoclassical initial components are productive in the formation of nouns, such as *auto-*, *elektro-*, *radio-*, *foto-* (*autoscénář* 'auto-scenario', *elektrometr* 'electrometer', *radiomechanika* 'radio-technique', *fotodokument* 'photo-document'), cf. also components with numeral and quantifying meanings (*mono-*, *mikro-*, *poly-*). The second elements of neoclassical compounds frequently express an abstract meaning, e.g., *-grafie* '-graphy', *-logie* '-logy' (*kardiografie* 'cardiography', *venerologie* 'venereology'), etc.

Some neoclassical components can be considered either compound components or prefixes (see Martincová and Savický 1987). They are productive and alive especially with the following meanings:

- a) Intensification, e.g., *ultra-: ultraradikál* (n.) 'ultra-radical', *ultrazáření* 'ultraradiation', *arci-: arcikritik* 'hypercritic';
- b) Rank, e.g., arci-: arcivévoda 'archduke'; vice-: vicepremiér 'vice-premier';
- c) Non-genuineness and pretense, e.g., kvazi-: kvaziumělec 'quasi-artist'; pseudo-: pseudověda 'pseudo-science';
- d) Time (former function), e.g., ex-: exposlanec 'ex-member of Parliament', exnáměstek 'ex-deputy'.

3.2. Adjectival compounds

In contemporary Czech, adjectival compounds are more frequently formed than compound nouns. The reason is mainly the growth of multi-word expressions, from which relational adjectives are formed. There is a predominance of synthetic compounds (i.e. a combination of composition + suffixation), e.g., *vysokohorský* 'alpine; lit. high-o-mountain-ADJ', *pravdomluvný* 'truthful; lit. truth-o-speak-ADJ', and, to a higher degree than with nouns, also copulative compounds (*analyticko-syntetický* 'analytic-synthetic').

The following may serve as examples of copulative compounds consisting of qualitative adjectives: *sladkokyselý* 'sweet-and-sour; lit. sweet-*o*-sour', *zelenomodrý* 'green-and-blue; lit. green-*o*-blue', *hluchoněmý* 'deaf-mute; lit. deaf-*o*-mute'.

Neoclassical word-formation is used for the expression of a broad spectrum of meanings, e.g., intensification or pretense (*ultraradikální* 'ultra-radical', *kvazivědecký* 'quasiscientific'); on the intermediate position of these formations between composition and prefixation see also section 3.1.3.

3.2.1. Determinative adjectival compounds

Determinative adjectival compounds are mostly denominal (slovnědruhový 'part-of-speech (adj.); lit. word-ě-class-Rel.ADJ' \leftarrow slovní druh 'part of speech; lit. word-Rel.ADJ class') and deverbal (samonabíjecí 'self-charging' \leftarrow sám nabíjí lit. '(sth.) self charges', dobročinný 'charitable' \leftarrow dobrý čin 'good deed'). They are chiefly related to the following types of nominal collocations:

A+N

- a) personal nouns, including proper names: *velk-o-pan-ský* 'aristocratic' (← *velký pán* 'noble man'), *svatopetrský* 'St. Peter('s)' (← *svatý Petr*);
- b) names of objects and abstract notions: kamen-o-uhel-ný 'stone-coal' (← kamenné uhlí 'stone coal'), křesťanskodemokratický 'Christian-democratic' (← křesťanská demokracie 'Christian democracy');
- c) names of categories of human activity: estetick-o-výchov-ný 'referring to esthetic education' (← estetická výchova 'esthetic education'), zahraničněpolitický 'foreignpolicy' (adj.) (← zahraniční politika 'foreign policy');

- d) names of scientific and technical concepts, methods, etc.: *nízk-o-procent-ní* 'low-percentage' (adj.) (← *nízké procento* 'low percentage');
- e) names of time and quantifying data: *každ-o-den-ni* 'every-day' (adj.) (← *každý den* 'every day'), *novoročni* 'new-year's' (← *nový rok* 'new year');
- f) common nouns and toponyms: *před-o-patrový* 'hard palate' (adj.) (← *přední patro* 'hard palate'), *latinskoamerický* 'Latin-American' (← *Latinská Amerika* 'Latin America'), *velkopopovický* 'from Velké Popovice' (← *Velké Popovice* (toponym));

Num+N

dv-ou-litr-ov' 'two-litre' (adj.) ($\leftarrow dva\ litry$ 'two litres'), $n\check{e}kolikatisicov$ ' 'several-thousand' (adj.) ($\leftarrow n\check{e}kolik\ tisic$ 'several thousands');

N+V

 \check{c} as-o-měr-ný 'chronometric' (\leftarrow měřit \check{c} as 'to measure time'), světoběžný 'globetrotter' (adj.) (\leftarrow běžet světem 'to run through the world');

Adv+V

daleko-sáh-lý 'far-reaching' (← sahat daleko 'to reach far'), novorozený 'newly-born' (← nově rozený 'newly born');

Pron+V

 $sam-o-\check{c}in-n\acute{v}$ 'self-acting' ($\leftarrow s\acute{a}m\ \check{c}in\acute{\iota}$ lit. 'self acts').

3.2.2. Copulative compounds

Copulative adjectival compounds are mostly denominal, they are chiefly related to the following types of names:

- a) personal nouns, including proper names: *dodavatelsko-odběratelský* 'supplier-customer' (← *dodavatel* 'supplier', *odběratel* 'customer'), *cyrilometodějský* 'Cyrilo-Methodian' (← *Cyril a Metoděj* 'Cyril and Methodius');
- b) geographical names: *labsko-oderský* 'Elbe-Oder' (← *Labe* 'Elbe', *Odra* 'Oder');
- c) abstract nouns: *hygienicko-zdravotnický* 'concerning hygiene and sanitation' (← *hygiena* 'hygiene', *zdravotnictví* 'sanitation'), *metodologicko-teoretický* 'methodological-theoretical' (← *metodologie* 'methodology', *teorie* 'theory').

Copulative adjectival compounds are either written together (*vědeckotechnický* 'scientific and technical'), or with a hyphen (*formálně-obsahový* 'concerning form and content' \leftarrow *forma a obsah* 'form and content'). For further details see Bozděchová (1994: 154–160).

3.3. Verbal compounds

Verbal compounds are very rare in Czech. Mostly they name abstract activities: $blaho-p\check{r}\acute{a}t$ 'to congratulate; lit. good-wish'. New compound verbs are formed only on a limited scale, most often they belong to the type Adv+V, e.g., znovuziskat 'to regain' ($\leftarrow ziskat$ znovu lit. 'to get anew'), spolupracovat 'to cooperate' ($\leftarrow pracovat spolu$ 'to work together').

3.4. Adverbial compounds

Czech has few adverbial (mostly reduplicative) compounds (dennodenně 'daily' (adv.) — denní 'daily' (adj.)) and adverbial linkages, often idiomatic (jakživ 'never ever; lit. as alive', zničehonic 'all of a sudden; lit. from nothing nothing'). Adverbial compounds chiefly name circumstances of manner, dimension or time (obouruč 'with both hands', střemhlav 'headfirst', polosedě 'half-sitting', každopádně 'in any case', nesčíslněkrát 'countless times'). Adverbial compounds have a similar onomasiological structure and naming value as adverbs derived from adjectival compounds — unlike adverbial compounds the latter are very live and productive in contemporary Czech, e.g., jednostranně 'unilaterally' (— jednostranný 'unilateral'), zlomyslně 'mischievously' (— zlomyslný 'mischievous'), národohospodářský 'national-economically' (— národohospodářský 'national-economic').

4. Derivation

Derivation represents the main word-formation procedure in Czech. Its starting point may be: a) a complete word (in the case of pure prefixation $-pra-\check{c}lov\check{e}k$ 'prehistoric man'), b) the stem of the basic word (knihov-nik 'librarian' $\leftarrow knihovna$ 'library', $p\mathring{u}j\check{c}-ka$ 'loan' $\leftarrow p\mathring{u}j\check{c}it$ 'to loan'), c) a morphological form of the word, either a simple one (adjectivization of participles $-vysp\check{e}l-\check{y}$ 'mature' $\leftarrow vysp\check{e}l$ 'he matured'), or a prepositional phrase ($p\check{r}edv\acute{a}no\check{c}ni$ 'pre-Christmas' $\leftarrow p\check{r}ed$ $V\acute{a}noci$ 'before Christmas').

Fundamental derivational processes rest upon the extension of the base by an affix. They include suffixation (characteristic of nouns and adjectives), prefixation (especially characteristic of verbs, but also productive in nouns and adjectives), conversion and combined processes (usually based on an underlying prepositional phrase), e.g., prefixation and suffixation (bezdomovec 'homeless person' $\leftarrow bez\ domova$ 'without home') and prefixation and conversion (z'amo'r'i 'overseas countries' $\leftarrow za\ mo\'rem$ 'over the sea').

Derivation is often accompanied by some phonic modification (alternation of sounds) of the word-base; as an independent procedure of word-formation phonic modification is unknown in Czech, cf. Dokulil (1962: 246; cited after the English summary): "In Czech, sound alternation usually performs the role of a mere concomitant component of the formation element, accompanying one of the basic word-formation procedures. The alternation of the phonic form of the base may be either dependent on the phonic environment (combinatory) or independent of it (isolated)."

A great functional load is imposed by derivational morphology on the shortening of vowels (yet there are no really productive types). Shortening is chiefly characteristic of nouns (with the suffixes $-\check{c}$, -tel, -dlo, -tko) derived from verbs with a long vowel in the base, e.g., $prod\underline{\acute{a}}vat$ 'to sell' $\rightarrow prod\underline{\acute{a}}va\check{c}$ 'seller', $skl\underline{\acute{a}}dat$ 'to compose' $\rightarrow skl\underline{\acute{a}}datel$ 'composer', $l\acute{e}tat$ 'to fly' $\rightarrow l\underline{\acute{e}}tadlo$ 'airplane'. Vowel-lengthening in the base is productive only with some word-formation types of diminutives ($l\underline{\acute{e}}st$ 'leaf' $\rightarrow l\underline{\acute{e}}stek$ 'leaflet'), and others.

4.1. Nominal derivation

The chief word-formation means is suffixation, some suffixes serve almost a constant function (-tel: agent nouns; -ost, -ství: abstract nouns; -dlo: instrument nouns), while others have a large range of functions (-ek, -ik, -ka, -ice, -ko, -ák, -ár). (See the list of patterns of suffixation according to classes of base words, gender and other semantic criteria in Dokulil et al. 1986: 231–450.)

4.1.1. Denominal nouns

Nouns are derived by so-called true prefixes (in pure prefixation), e.g., *ne*- in the meaning of negation (*nepořádek* 'disorder'), *pře*- expressing emphasis (*přemíra* 'surplus'), *pa*- with the meaning of alleged similarity (*pa-klíč* 'false key'), etc. and with prefixes of prepositional origin (so-called untrue prefixes), especially with temporal or local meaning: *do-poledne* 'forenoon', *před-pokoj* 'anteroom', *proti-směr* 'opposite direction' (cf. Dokulil et al. 1986: 311–312).

In the case of nouns, combined prefixal-suffixal word-formation is more common, e.g., $n\acute{a}$ -hrdel- $n\acute{i}k$ 'necklace; lit. on-neck-suff' (\leftarrow hrdlo 'neck'), proti- $no\check{z}$ -ec 'antipodean (loan translation); lit. anti-foot-suff' (\leftarrow noha 'foot') as well as a combination of prefixation and conversion, e.g., bez- $v\check{e}t\check{r}$ -i 'calm, doldrums; lit. without-wind-INFL' (\leftarrow $v\acute{t}tr$ 'wind'), sou- $hv\check{e}zd$ -i 'constellation (loan translation); lit. together/with-star-INFL' (\leftarrow $hv\check{e}zda$ 'star').

In the realm of suffixation, personal nouns name a person according to occupation and interests. Productive suffixes are, e.g., $-a\check{r}/-a\check{r}$ (kniha \check{r} 'bookbinder' \leftarrow kniha 'book', železničá \check{r} 'railwayman' \leftarrow železnice 'railway'), less productive -nik (lesník 'forester' \leftarrow les 'forest'), unproductive -ak (vodák 'paddler' \leftarrow voda 'water'). The most used foreign suffixes comprise -ik (metodik 'methodologist' \leftarrow metoda 'method') and -ista (saxofonista 'saxophonist' \leftarrow saxofon 'saxophone', pozitivista 'positivist' \leftarrow pozitivismus 'positivism'). Nouns denoting persons according to their origin and habitation are derived by the productive suffixes -an (jižan 'Southerner' \leftarrow jih 'South', Američan 'American' (n.) \leftarrow Amerika 'America'), -ec (Ukrajinec 'Ukrainian' (n.) \leftarrow Ukrajina 'Ukraine'), and -ak (horák 'mountaineer' \leftarrow hora 'mountain', Žižkovák 'inhabitant of Žižkov').

Place nouns are formed with the productive suffixes -iště (ohniště 'fireplace' \leftarrow oheň 'fire') and -na with variants (kotelna 'boiler room' \leftarrow kotel 'boiler', drůbežárna 'poultry farm' \leftarrow drůbež 'poultry'); the suffixes -nik and -nice are less productive (holubník 'pigeon loft' \leftarrow holub 'pigeon', chmelnice 'hop garden' \leftarrow chmel 'hop').

Diminutives denote smaller or emotionally close, beloved objects; they are very numerous and productive in Czech. The most productive suffixes are -ka, -ko, -ek, -ik ($l\check{z}i\check{c}ka$ 'teaspoon' $\leftarrow l\check{z}ice$ 'spoon', $sl\mathring{u}vko$ 'little word' $\leftarrow slovo$ 'word', $mot\acute{y}lek$ 'small butterfly' $\leftarrow mot\acute{y}l$ 'butterfly'); many diminutives have secondary, specialized, meanings ($me\check{c}ik$ 'little sword' and 'gladiolus' $\leftarrow me\check{c}$ 'sword', $stoli\check{c}ka$ 'little chair, stool' and 'molar' $\leftarrow st\mathring{u}l$ 'table').

Names of female persons (occasionally other living beings) are derived from masculine names by means of the productive suffixes -ka, -(k)yně, and -ice (lingvistka

'woman linguist', přítelkyně 'female friend' \leftarrow přítel 'friend'; lvice 'lioness' \leftarrow lev 'lion'); with female surnames: -ová (Nováková \leftarrow Novák).

Names of young beings (young animals, rarely persons) are formed by conversion and with the endings of the neuter gender $-\check{e}/-e$ (medvidě 'young bear' \leftarrow medvěd 'bear', ptáče 'young bird' \leftarrow pták 'bird').

Collective nouns are formed by the productive suffixes -stvo/-ctvo, -i/-ovi (mužstvo 'team; lit. man-COLL' \leftarrow muž 'man', lidstvo 'mankind' \leftarrow lid 'people', křovi 'bushes' \leftarrow keř 'bush').

4.1.2. Deadjectival nouns

Abstract nouns can be derived by means of the productive suffixes -ost, -stvi/-ctvi, -ina (moudrost 'wisdom' \leftarrow moudrý 'wise', křesťanství 'Christianity' \leftarrow křesťanský 'Christian').

Attributive nouns (designations of persons, animals, plants, and objects according to their characteristic or alleged properties or features) are derived by the productive suffixes -ec, -ik, -ka, -ice (poctivec 'fair man' \leftarrow poctivý 'fair', poledník 'meridian' \leftarrow polední 'noon (adj.)', bělice 'dace' \leftarrow bílý 'white'); less productive is -ák (dobrák 'good guy' \leftarrow dobrý 'good'). A special group of attributive nouns is constituted by derivatives designating languages, e.g., čeština 'Czech language' (\leftarrow český 'Czech'), angličtina 'English language' (\leftarrow anglický 'English').

4.1.3. Deverbal nouns

Action nouns can be formed by means of the following productive suffixes: -n(i), -t(i), -ot, -ek/-k, -ba, -ka (piskání 'whistling' \leftarrow piskat 'to whistle', škrábnutí 'scratching' \leftarrow škrábnout 'to scratch', skřípot 'creak' \leftarrow skřípat 'to creak', spánek 'sleeping, sleep' \leftarrow spát 'to sleep', střelba 'shooting' \leftarrow střelit/střílet 'to shoot', hádka 'quarrel' \leftarrow hádat se 'to quarrel').

Result nouns: productive suffixes are -ek/-k, -ka (odlitek 'casting' \leftarrow odlit 'to cast', $vykop\acute{a}vka$ 'excavation' \leftarrow vykopat 'to dig out'); the suffix -ina is less productive (rozvalina 'ruin' \leftarrow rozvalit 'to ruin').

Agent nouns comprise designations of persons (rarely of animals, plants or inanimate objects) according to a characteristic activity. Productive suffixes are: -el, $-\check{c}$ and its variants $-a\check{c}/-e\check{c}$ (hostitel 'host' \leftarrow hostit 'to host', posluchač 'listener' \leftarrow poslouchat 'to listen') and the foreign suffixes -ant, -ent, -or (demonstrant 'demonstrator' \leftarrow demonstrovat 'to demonstrate', assistent 'assistent' \leftarrow assistovat 'to assist', revizor 'inspector' \leftarrow revidovat 'to inspect'). The following suffixes are less productive: -ce, -ec, -nik (ochránce 'protector' \leftarrow ochránit 'to protect', letec 'flyer, aviator' \leftarrow letět 'to fly', tlumočník 'interpreter' \leftarrow tlumočit 'to interprete').

Instrument nouns are derived with the productive suffixes $-\check{c}$ ($drti\check{c}$ 'crusher' \leftarrow drtit 'to crush', $vypina\check{c}$ 'switch' \leftarrow vypinat 'to switch'), $-\check{c}ka$ ($vysila\check{c}ka$ 'transmitter' \leftarrow vysilat 'to transmit'), -dlo and its variants -adlo/-idlo ($rozpoušt\check{e}dlo$ 'solvent' \leftarrow $rozpoušt\check{e}t$ 'to dissolve', $dr\check{z}adlo$ 'handle' \leftarrow $dr\check{z}et$ 'to handle'), and the less productive

suffixes -ník, -nice, -ka, -ák, -ivo (cedník 'strainer' \leftarrow cedit 'to strain', zápalka 'match' \leftarrow zapálit 'to light up', padák 'parachute' \leftarrow padat 'to fall', léčivo 'medicine' \leftarrow léčit 'to cure').

Place nouns can be formed by means of the suffixes $-išt\check{e}$, -na and their variants ($h\check{r}i\check{s}t\check{e}$ 'playground' $\leftarrow hr\acute{a}t$ (si) 'to play', studovna 'study-room' $\leftarrow studovat$ 'to study').

4.2. Adjectival derivation

Adjectives are mainly derived by suffixation. Semantically, they can be distinguished into relational ($m\check{e}stsk\acute{y}$ 'municipal' $\leftarrow m\check{e}sto$ 'town, city') and qualitative adjectives ($otcovsk\acute{y}$ 'fatherly, paternal' $\leftarrow otec$ 'father'), although the boundary between the two groups is usually not clearly defined, cf. $lidsk\acute{y}$ 'human, concerning people' vs. $lidsk\acute{y}$ 'humane, kind' (Dokulil et al. 1986: 320).

4.2.1. Denominal adjectives

Relational adjectives express a relation to

- a) animate beings: Possessive adjectives, i.e. adjectives establishing a referential/genitival relationship with the person designated by the base, are formed (almost without formal limitation) from masculine nouns with the suffix -ův (autorův 'author's' ← autor) and from feminine nouns with the suffix -in (sestřin 'sister's' ← sestra). Other relational adjectives are derived by means of the suffixes -i, -ský/-cký (lví 'lion's' ← lev 'lion', dámský 'lady's' ← dáma 'lady', chlapecký 'boy's' ← chlapec 'boy');
- b) inanimate objects and concepts: The suffixes -ový, -ný, -ní are productive (jahodový 'strawberry' ← jahoda, hedvábný 'silk' ← hedvábí, bezpečnostní 'safety' (adj.) ← bezpečnost). Numerous adjectives with the suffixes -ský/-cký, -ní are related to names of places (pražský 'Prague' (adj.) ← Praha, zámecký 'castle' (adj.) ← zámek, státní 'state' (adj.) ← stát);
- c) material or origin: These adjectives are formed with the suffixes $-\check{e}n\acute{y}/en\acute{y}$, $-ov\acute{y}$ (hlin- $\check{e}n\acute{y}$ 'clay' (adj.) \leftarrow hlina, porcelánový 'porcelain' (adj.) \leftarrow porcelán).

Adjectives of Graeco-Latin origin are most frequently adapted with the suffix -ni, less frequently -(i)cký (relativní 'relative', tematický 'thematic').

Qualitative adjectives denoting possession are derived with the suffixes $-n\acute{y}$, $-iv\acute{y}$ ($n\acute{e}\acute{z}n\acute{y}$ 'tender' $\leftarrow n\acute{e}ha$ 'tenderness', $d\mathring{u}v\acute{e}\acute{r}iv\acute{y}$ 'trustful' $\leftarrow d\mathring{u}v\acute{e}ra$ 'trust'), a quantitative nuance can be expressed by the suffix $-at\acute{y}$ ($okat\acute{y}$ 'big-eyed' $\leftarrow oko$ 'eye'). Adjectives denoting similarity are derived with the suffix $-ovit\acute{y}$ ($ka\acute{s}ovit\acute{y}$ 'mushy' $\leftarrow ka\acute{s}e$ 'mush', $v\acute{a}lcovit\acute{y}$ 'cylinder-shaped' $\leftarrow v\acute{a}lec$ 'cylinder'). This suffix is extensively used in specialized botanical and zoological names ($r\mathring{u}\check{z}ovit\acute{e}$ 'Rosaceae' $\leftarrow r\mathring{u}\check{z}e$ 'rose', $ko\acute{c}kovit\acute{e}$ 'feline' $\leftarrow ko\acute{c}ka$ 'cat').

4.2.2. Deadjectival adjectives

Prefixes can express a negative meaning, e.g., ne- (nehezky 'non-pretty'), intensification, e.g., pra-, pre- (pradavny 'ancient' $\leftarrow davny$ 'bygone', prekrasny 'gorgeous'

 \leftarrow krásný 'beautiful'), or an alleged quality, e.g., pa- (paumělecký 'pseudo-artistic'). Negative nuances can also be expressed by prefixal-suffixal adjectives (na-slád-lý 'sweetish' \leftarrow sladký 'sweet', za-žlout-lý 'yellowed' \leftarrow žlutý 'yellow', pobledlý 'colourless' \leftarrow bledý 'pale').

Suffixal deadjectival adjectives express relative degrees of properties: the formation of the comparative can be included here. This procedure is productive with qualitative adjectives, the basic groups using the suffixes $-ej-\check{s}i/-\check{e}j-\check{s}i$, $-\check{s}i$ (veselej $\check{s}i$ 'more cheerful' \leftarrow vesel \check{y} 'cheerful', hloup $\check{e}j\check{s}i$ 'duller' \leftarrow hloup \check{y} 'dull', mlad $\check{s}i$ 'younger' \leftarrow mlad \check{y} 'young').

Deadjectival adjectives expressing intensification and approximation are formed with the poorly productive suffixes $-at\acute{y}$, $-\acute{a}nsk\acute{y}$ (malinkat\acute{y} 'too little' \leftarrow malink \acute{y} 'little', $velik\acute{a}nsk\acute{y}$ 'too big' \leftarrow $velik\acute{y}$ 'big') and $-av\acute{y}$ (modrav \acute{y} 'bluish' \leftarrow modr \acute{y} 'blue'). Adjectives expressing endearment are derived from adjectives by means of the suffixes $-i\acute{c}k\acute{y}$, $-ink\acute{y}$, $-ou\acute{c}k\acute{y}$, $-ounk\acute{y}$ (mali $\acute{c}k\acute{y}$ 'very small' \leftarrow mal \acute{y} 'little', $tenink\acute{y}$ 'very thin' \leftarrow $tenk\acute{y}$ 'thin', $b\check{e}lou\check{c}k\acute{y}$ 'very white' \leftarrow $b\acute{l}l\acute{y}$ 'white', $milounk\acute{y}$ 'very dear' \leftarrow $mil\acute{y}$ 'dear').

4.2.3. Deverbal adjectives

Deverbal adjectives with a ctive meaning are (synchronically) formed with the suffix -ci and its variants -ou-ci, -i-ci, -eji-ci, -aji-ci (e.g., volajici 'screaming' \leftarrow volat 'to scream', kupujici 'buying' \leftarrow kupovat 'to buy') or with -lý (which goes back to the active past tense participle), e.g., přistěhovalý 'moved in' (\leftarrow přistěhovat 'to move in').

Other adjectives expressing relatively permanent properties or an inclination to the action denoted by the base verb, are formed with the suffix $-v\dot{y}$ and its variants (toulav \dot{y} 'wandering' \leftarrow toulat se 'to wander', mlčenliv \dot{y} 'silent, discreet' \leftarrow mlčet 'to be quiet, keep silent'). Deverbal adjectives with a purposive meaning are derived by the suffixes -ci, -aci, -ici (praci 'washing' \leftarrow prát 'to wash', cf. praci stroj 'washing machine', stojaci 'standing' \leftarrow stát 'to stand', cf. stojaci lampa 'floor lamp', žehlici 'ironing' \leftarrow žehlit 'to iron', cf. žehlici prkno 'ironing board').

Passive meaning is expressed by adjectives with the suffixes $-n\acute{y}$, $-t\acute{y}$ (zpomalen \acute{y} 'slowed down' \leftarrow zpomalit 'to slow down', smažen \acute{y} 'fried' \leftarrow smažit 'to fry', zapomenut \acute{y} 'forgotten' \leftarrow zapomenout 'to forget').

Adjectives designating the potential affectedness by an action are chiefly formed with the productive suffix -telný/-itelný (kontrolovatelný 'controllable' \leftarrow kontrolovat 'to control', viditelný 'visible' \leftarrow vidět 'to see'), and the unproductive suffix -ný (pitný 'drinkable' \leftarrow pít 'to drink').

4.2.4. Deadverbial adjectives

These adjectives are mainly derived from temporal and local adverbs by means of the suffixes $-ej\check{s}i/-\check{e}j\check{s}i$, -ni, $-n\acute{y}$ ($zit\check{r}ej\check{s}i$ 'tomorrow's' (adj.) $\leftarrow zitra$ 'tomorow', $pozd\check{e}j\check{s}i$ 'later' (adj.) $\leftarrow pozd\check{e}$ 'late', dolni 'lower' $\leftarrow dole$ 'down', $zp\check{e}tn\acute{y}$ 'backward' $\leftarrow zp\check{e}t$ 'back').

4.3. Verbal derivation

Verbs can be derived from different semantic classes of nouns, adjectives and verbs, which results in a broad variety of their semantics. Prefixation is much developed among deverbal verbs, with both "true" prefixes (*roz-*, *vy-*, *vz-*), and prefixes going back mostly to local and temporal prepositions (*do-*, *na-*, *o-*, *po-*, *pod-*, *pro-*, *před-*, *při-*, *u-*, *v-*, *z-*, *za-*).

The predominant suffixes are *-ova-t* and *-i-t*; the first one is used as exclusive when foreign stems and verbs are adapted (*bilancovat* 'to make up the balance, look back', *interpretovat* 'to interpret'). A combined formation type is represented by the attachment of a prefix and a reflexive morpheme; perfective verbs formed in this way mostly have a "quantitative" (saturative) meaning (*běhat* 'to run' \rightarrow *naběhat se* 'to run until exhaustion', *číst* 'to read' \rightarrow *začíst se* 'to delve into reading').

Verbal suffixes differ from other word-formation affixes in that they relate the verb to its conjugational paradigm. It would therefore be more precise to speak of the derivation of verbs by means of stem-forming suffixes and in a few cases to distinguish them from real word-formation suffixes that stand before them. For the sake of simplicity we list them in all cases as suffix.

4.3.1. Denominal and deadjectival verbs

Denominal verbs express, among others, the following meanings:

- a) 'to be N' (derived from personal nouns with the suffixes -it and -ovat), e.g., vítězit 'to win' (← vítěz 'winner'), hostovat 'to host' (← host 'guest');
- b) 'to have N/produce N' (-it, -ĕ/et, -at, -ovat), e.g., toužit 'to long for' (← touha 'desire, longing'), vonět 'to scent, smell' (← vůně 'scent, flavour'), hlasovat 'to vote' (← hlas 'vote, ballot'), mapovat 'to map' (← mapa 'map');
- c) 'to act with N' (-ovat, -it), e.g., veslovat 'to paddle' (← veslo 'paddle'), bruslit 'to skate' (← brusle 'skates').

Deadjectival verbs mostly express inchoative or factitive meaning:

- a) 'to become A' (-ĕ/et, -nout, -at), e.g., vápenatět 'to calcify' (← vápenatý 'calcareous, limy, calcic'), chladnout 'to get cold' (← chladný 'cold'), modrat 'to become blue' (← modrý 'blue');
- b) 'to make A' (-it), e.g., čistit 'to clean' (\leftarrow čistý 'clean').

4.3.2. Deverbal verbs

Prefixation is the main source of deverbal verbs. Prefixes are frequently polysemous and perform various functions: they change the lexical meaning ($ps\acute{a}t$ 'to write' $\rightarrow pode-psat$ 'to sign; lit. under-write'), they render imperfective verbs perfective ($d\acute{e}lat$ ipf. 'to do, make' $\rightarrow ud\acute{e}lat$ pf.), they express different meanings of aktionsart, e.g., delimitative or cumulative meaning (jist 'to eat' $\rightarrow pojist$ 'to eat a bit', koupit 'to buy' $\rightarrow skoupit$ 'to

buy up'), they denote a phase (*roze-stavět* 'to start building', *vy-studovat* 'to finish studying'), or the degree of the intensity of the action (e.g., prefix + postfix *se*: *u-smát se* 'to give a smile', *za-tančit si* 'to have a dance').

The prefixes of adapted international verbs usually have some meanings similar to the Czech prefixes, cf. di(s)- (roz-, od-), e(x)- (vy-), pre- (před-), sub- (pod-), trans- (pře-): diskriminovat 'to discriminate' – rozlišovat 'to distinguish', emigrovat 'to emigrate' – vy- stěhovat 'to move out', exportovat 'to export' – vyvážet 'id.', predeterminovat 'to predetermine' – předurčit 'to predestinate', subordinovat 'to subordinate' – podřizovat 'id.', trans- formovat 'to transform' – převést 'to transfer, convert', etc.

Verbal suffixes express the following meanings:

Aspect: a) ipf. \rightarrow pf., e.g., -nout (riskovat \rightarrow risknout 'to take a risk'); b) pf. \rightarrow ipf., e.g., -v-at, -o-vat, -at (dodělat \rightarrow dodělávat 'to finish doing', dodržet \rightarrow dodržovat 'to keep', vyrůst \rightarrow vyrůstat 'to grow up');

Iterativity by means of $-\check{e}/et$, -it, -at (sadit \rightarrow sázet 'to plant', $v\acute{e}zt \rightarrow vozit$ 'to carry', $chytit \rightarrow chytat$ 'to catch') and $-vat/-v\acute{a}v-at$ ($\check{c}ekat \rightarrow \check{c}ek\acute{a}vat$ 'to wait', $\check{r}ikat \rightarrow \check{r}ik\acute{a}v\acute{a}vat$ 'to say');

Diminution with the suffixes -kat, -inkat, -itat (capat 'to patter' \rightarrow capkat 'to patter a bit', spát 'to sleep' \rightarrow spinkat 'to nicely sleep', cupat 'to toddle' \rightarrow cupitat 'to toddle a bit'). At the same time, these verbs express the speaker's emotional attitude to the activity (or its agent).

4.4. Adverbial derivation

Adverbs are not very specific of Czech word-formation and poor in means. They are mainly derived by suffixation, deadverbial adverbs also by prefixation and combined prefixation and conversion.

Denominal adverbs are derived on a limited scale, chiefly with the suffix -mo (e.g., $ko\check{n}mo$ 'on horseback' $\leftarrow k\mathring{u}\check{n}$ 'horse').

Deadjectival adverbs are formed by means of the highly productive suffixes $-\check{e}/-e$ and -y, less productive -o ($\check{s}patn\check{e}$ 'badly' \leftarrow $\check{s}patn\acute{y}$ 'bad', dokonale 'perfectly' \leftarrow $dokonal\acute{y}$ 'perfect', romanticky 'in a romantic way' \leftarrow $romantick\acute{y}$ 'romantic', $\check{s}iroko$ 'widely' \leftarrow $\check{s}irok\acute{y}$ 'wide').

Deverbal adverbs are rare, cf. some examples with the suffixes -mo and -ky (ležmo 'when lying' $\leftarrow ležet$ 'to lie', mlčky 'silently' $\leftarrow mlčet$ 'to be silent').

Suffixal deadverbial adverbs express the degrees of comparison: the comparative of adverbs is formed with the suffixes $-\check{e}/eji$, -e ($kr\acute{a}sn\check{e}$ 'beautifully' $\rightarrow kr\acute{a}sn\check{e}ji$ 'more beautifully', $n\acute{i}zko$ 'lowly' $\rightarrow n\acute{i}z\acute{e}$ 'more lowly'); the superlative is formed by prefixation of the comparative ($nej-kr\acute{a}sn\check{e}ji$ 'most beautifully').

Deadverbial adverbs can also be derived by prefixation. The corresponding prefixes express temporal and local meaning (do-dnes 'to this day; lit. until today', na-dále 'from now, furthermore; lit. on further', od-jinud 'from somewhere else'), quantitative and intensifying meanings (po-blíž 'nearby', pra-dávno 'very long time ago', pře-daleko 'too far away').

Some adverbs are formed by a combination of prefixation and conversion (e.g., zitra 'tomorrow' $\rightarrow pozit\check{r}i$ 'the day after tomorrow').

5. Conversion

Conversion is relatively rare in Czech. According to Dokulil et al. (1986: 487 ff.), it includes "in a broader sense": 1. word-formation by mere transferral of a word from one part of speech to another (without any formal changes), and 2. word-formation whose only means is the change of the characteristic inflectional feature (ending).

5.1. Nominal conversion

Conversion occurs chiefly with the nominalization of adjectives to personal nouns (pracujici 'working person', raněný 'injured person', příbuzný 'relative'), animals (škodná 'vermin', cf. škodit 'to do harm'), and others, e.g., food and drinks (vepřová 'pork', šampaňské 'champagne'), colours (zelená 'green'), institutions (vysoká škola lit. 'high school' \rightarrow vysoká 'college, university', hlavní silnice 'main road' \rightarrow hlavní 'id.'), or activities (taneční 'dancing lessons'). Some of them can also be interpreted as results of ellipsis of the noun or as results of univerbation (see also article 42 on multi-word expressions and univerbation in Slavic).

Conversion in the sense of a change of a characteristic explicitly expressed morphological feature mainly results in the formation of denominal collective nouns (smrk 'spruce' $\rightarrow smr\check{c}-i$ 'spruce forest, spruces', $ostru\check{z}ina$ 'blackberry' $\rightarrow ostru\check{z}in-i$ 'blackberry bushes') or deverbal abstract nouns, e.g., lovit 'to catch' $\rightarrow lov$ 'catch (n.)'. This type of conversion can also be combined with other word-formation procedures, see section 3.1.1 on composition and section 4.1.1 on prefixation.

5.2. Adverbial conversion

Adverbialization of simple or prepositional case forms of nouns gives rise especially to adverbs of place, time and manner (stranou 'aside', časem 'eventually', ráno 'in the morning', bezpochyby 'without doubts', dohromady 'together', nazpaměť 'by heart'). Some (diachronically) short forms of neuter adjectives are adverbialized into modal or state-describing adverbs used as predicatives (i.e. impersonal non-verbal predicates) in the sentence (nutno 'necessarily' and as predicative 'it is necessary (to)', smutno 'sadly' and 'it is sad (to)', deštivo 'rainily' and 'it is rainy').

6. Minor processes of word-formation

Backformation (deprefixation, desuffixation) is entirely marginal in Czech; the great majority of backformed words is stylistically expressive or poetic ($tes \leftarrow \acute{u}tes$ 'cliff'), the only exception are formations like $kr\acute{a}sa$ 'beauty' ($\leftarrow kr\acute{a}s-n-\acute{y}$ 'beautiful'). Simple desuffixation does not occur, there are only some cases of suffix deletion, i.e. truncation of the derivational stem to which an ending or another suffix is added, e.g., dareb-a

'rascal' (\leftarrow dareb-n- \acute{y} 'rascally') and boh- \acute{a} \acute{c} 'rich-man' (\leftarrow boh-at- \acute{y} 'rich') (see also article 163 on Slovene, section 6).

Simple reduplication of the stem mostly serves to emphasize the meaning of the underlying word. This is a marginal method of word-formation, it gives rise above all to expressive adjectives and adverbs, e.g., $jistojist\acute{y}$ 'certain', $pouhopouh\acute{y}$ 'pure', $svatosvat\acute{y}$ 'saint, sacrosanct', $dennodenn\acute{e}$ 'daily', $u \check{z}u \check{z}/ji\check{z}ji\check{z}$ 'in every minute' ($\leftarrow u\check{z}/ji\check{z}$ 'already'), $koneckonc\mathring{u}$ 'after-all; lit end-Nom.sg-end-GEN.PL' ($\leftarrow konec$ 'end').

Cases of blending in Czech are predominantly of foreign, at present chiefly of English origin. They are used extensively, above all in specialized slang, into which new anglicisms actively penetrate. Original Czech blends are very rare and mostly occur occasionally, cf. the proposals $Mor\check{c}e$ ($\leftarrow Morava$ 'Moravia' and $\check{C}echy$ 'Bohemia') or $\check{C}echrava$ ($\leftarrow \check{C}echy$ and Morava) as substitutional names for the Czech Republic (in the 1990s). They are all nouns (autobus 'bus', smog), the newer blends include, e.g., widely used internationalisms such as brunch, edutainment, infotainment, camcorder, fanzin (E. fanzine), workoholismus (E. workoholismus), etc.

Clipping as a means of linguistic economy has various formal types, the great majority of them being based on institutional or geographical names (single or established multi-word names), e.g., abbreviations, consisting of the initial letters of the underlying name ($\check{C}R \leftarrow \check{C}esk\acute{a}$ republika), or of initials and syllables ($\check{C}edok \leftarrow \check{C}eskoslovensk\acute{a}$ dopravní kancelář, name of a travel agency, founded in 1920). The shortening of single-word names (frequently complemented by derivation and a change of the quantity of the base vowel) traditionally results in the formation of hypocoristics ($D\acute{a}sa \leftarrow Dagmar$, $Mirek \leftarrow Miroslav$), and conversational or slang variants of appellatives ($limo \leftarrow limon\acute{a}da$ 'lemonade', $nashle \leftarrow nashledanou$ 'good-bye, bye', $d\check{e}j\acute{a}k \leftarrow d\check{e}jepis$ 'history' (in pupils' slang), $fot\acute{a}k \leftarrow fotoapar\acute{a}t$ 'camera', $komp/comp \leftarrow computer$ 'computer').

Word-creation, i.e. individual word-formation by means of sounds and syllables or morphemes of the given language is often marked by analogy (imitation), conveyed by the sound form or influenced by expressive word-formation models. It is quite rare in Czech and results mostly in occasionalisms. The anomalies rest in the unusualness of the combination of word-formation elements. Traditionally, word-creation is found in literary style (authors' coinages, namely in modern fairy-tales or sci-fi works, including both common and proper names, e.g., *Hurvinek* – a legendary Czech puppet character; Jan Werich, 1960: *fimfárum* – a special magic wand; Jaromír John, 1948: *Pampovánek* – a character's name; Kateřina Blažková, 2009: *algabram* – a magician's instrument, *klu-čenky*, *zeltky bélané*, *lendané* – fictitious cosmic creatures), and more recently in some forms of medial and electronic communication, such as SMS, blogs, etc. (nicknames of participants of internet discussion forums: *macpac*, *qwerty47*, *cio-ran-m*). Special cases are represented by word-creation in translation, e.g., the transfer, imitation of occasionalisms and individualisms and word-plays from the original language (e.g., *famfrpál* as Czech equivalent to J. K. Rowling's *quidditch*, a name of a fictional sport).

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