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164. Croatian

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Abstract

The article gives an introduction to contemporary Croatian word-formation and its research. The most productive word-formation process is suffixal derivation. The parts of speech are described from a formal and semantic viewpoint and illustrated by examples.

1. Introduction

Croatian is a South-Slavic language spoken by ca. 5.5 million people in Croatia (ca. 4 million), in Bosnia and Herzegovina, the Serbian province of Vojvodina, and abroad. Croatian has three dialects: Kajkavian, Čakavian and Štokavian. The standard language is based on the Štokavian dialect. The oldest literary production was based on Church Slavonic and written in the Glagolitic script, e.g., the “Baška tablet” (*Bašćanska ploča*) from 1100. Croatian vernacular literary texts in Čakavian go back to the 14th century, in Štokavian to the 15th century, and in Kajkavian to the 16th century. The first printed dictionary was Faust Vrančić’s *Dictionarium quinque nobilissimarum Europae linguarum: Latinae, Italicae, Germanicae, Dalmati[c]ae et Ungaricae* (1595), the first grammar was written by the Jesuit Bartol Kašić (*Institutionum linguae illyricae libri duo* 1604). Rajmund Đamanjić was the author of the first treatise on Croatian orthography in Latin script (1639).

Since the 19th century there have been attempts to create a common standard language for Croats and Serbs by means of permanent language-policy measures and standardization (cf. Grčević 2002, 2009). Unification was encouraged and actively carried out by all multi-national states in which Croats lived together with Serbs. This resulted in Croatian and Serbian being brought closer together, but not in their unification. A common Croatian-Serbian basic linguistic work that was generally accepted, did not even exist during the period of Yugoslavia. In works on standard Croatian, Croatian was often called “Croatian or Serbian”, because the Communist authorities forbade the consideration of Croatian as a separate language and ordered “Serbian” to be added with the aim of removing the distinction between the two languages. However, different historical currents in the formation of the standard languages of Croats and Serbs, which began in the Middle Ages, proved to be stronger than the desire for unification. Croatian and Serbian (cf. article 165) have remained two independent standard languages, although the level of their typological closeness and correspondence is extremely high and the greatest among all Slavic standard languages.

In major contemporary works on Croatian grammar, word-formation has the status of an autonomous grammatical discipline and is dealt with in a separate chapter, in the same way as phonology, morphology or syntax. In the grammar of Silić and Pranjković (2005), it is treated as a constituent part of morphology. In minor Croatian grammars, word-formation is not dealt with at all. In some Croatian secondary school textbooks, it is treated as a part of lexicology.

In the past five or six decades synchronic-structuralist word-formation in modern standard Croatian has been researched by Stjepan Babić more than by anyone else. He gave the first complete modern description of Croatian word-formation classified by parts of speech in the school grammar *Pregled gramatike hrvatskoga književnog jezika* [A Review of the Grammar of Standard Croatian] (Babić and Težak 1973). The book has been regularly re-edited under the title *Gramatika hrvatskoga jezika* [Grammar of Croatian], cf. Babić and Težak (2004). Babić concluded his research with his major work *Tvorba riječi u hrvatskom književnom jeziku* [Word-Formation in Standard Croatian] (1986). In this work, he describes in detail the formation of nouns, adjectives, verbs and adverbs based upon a corpus of 90,000 words (all corpus texts come from Croatian literature). According to Babić’s studies, there are 771 suffixes (including variants such

as *-ilica, -lica, -ica*) and 77 prefixes in Croatian. His treatise of contemporary Croatian word-formation is not only descriptive, but also normatively conceived.

Babić's description of 1973 served as the starting point not only for his major work of 1986, but also for E. Barić's description of word-formation in *Hrvatska gramatika* [Croatian Grammar] (Barić et al. 2005 [1979]: 285–371, 387–389). The formation of verbs in this work (pp. 372–386) was dealt with by M. Lončarić. Synchronic-diachronic word-formation in Croatian onomastics has been dealt with primarily by Bjelanović (2007) and Šimunović (2009).

The present article is based on Babić's monograph of 2002 [1986] as the main source for the examples provided here. According to the conception of this handbook, the article differs from Babić's semasiological description of affixal, especially nominal word-formation. An onomasiological approach, based on word-formation categories, is more characteristic of his treatment of adjectives.

2. General overview

The most productive word-formation process in Croatian is derivation: suffixation (*raditi* 'to work' → *rad-nik* 'worker'), prefixation (*poručnik* 'lieutenant' → *pot-poručnik* 'second lieutenant; lit. sublieutenant'), and circumfixation (*bez-um-lje* 'madness; lit. without-mind-ABSTR'). The activity of affixation is also reflected in the formation of synthetic compounds. Croatian word-formation also recognizes as formants zero suffixes and zero interfixes. Composition on the base of two autonomous words is less productive. More than two lexical morphemes (but not more than three) occur only exceptionally in Croatian compounds.

There are numerous phonological alternations, particularly at the boundary between stems and affixes. The most common are assimilations, e.g., *pod-* + *predsjednik* – *pot-predsjednik* 'vice president; lit. sub-president', *iz-* + *čeznuti* – *iščeznuti* 'to escape'. There are also numerous (diachronically motivated) vowel and consonant alternations, e.g., *hramati* 'to limp' – *hrom* 'lame', *strah* 'fright' – *strašan* 'frightful', *ruka* 'hand' – *ručetina* 'coarse hand', *poslati* 'to send' – *pošiljka* 'parcel', etc.

Elements of Latin and Greek origin (*auto-*, *aero-*, *agro-*; *-bus*, *-drom*, *-fil*, etc.) occur as so-called bound stems or bound lexical morphemes (sometimes also called suffixoids and prefixoids). The term "neoclassical word-formation" is not used. Elements which are modificational, such as *anti-*, *arhi-* 'arch-', *inter-*, *super-*, *ultra-* are regarded as prefixes. In the literature, a small number of bound stems of Slavic origin are mentioned, e.g., *polu-* 'half', *vele-* 'large', *nadri-* 'pseudo-', and *nazovi-* 'quasi-'.

3. Composition

Lexical stems are connected either by a linking vowel (in Croatian terminology: interfix), e.g., *brod-o-graditelj* 'shipbuilder', or without one (*imendan* 'name day', *gasmaska* 'gas mask'). The interfix is most frequently *-o-*, occasionally *-e-*, *-i-* in exocentric compounds of the type *palikuća* 'arsonist; lit. set fire-house', and *-u-* in compounds with *bratu-*

'brother-', *polu-* 'half-' and *tisuću-* 'thousand-'. The zero morpheme (- \emptyset -) is also regarded as interfix.

In some compounds a hyphen is used in the function of an interfix, e.g., *spomen-dom* 'memorial house; lit. memory-house', *rak-rana* 'cankered wound; lit. canker-wound', *grad-država* 'city state'. Such formations whose components keep their stress and basic meaning are called "semi-compounds". The notion of "semi-compound" does not only concern word-formation, but also orthography and syntax (therefore there is no generally accepted definition).

The division of compounds into endocentric and exocentric is not common in Croatian linguistic literature. It is generally thought that endocentric compounds in Slavic languages are a more recent phenomenon than exocentric compounds. Their emergence is explained by literary production and the influence of foreign languages such as Greek and Latin, Italian, Hungarian, and German (especially in the 18th and 19th centuries).

3.1. Nominal compounds

There are two main types of nominal compounds: the so-called pure compounds consisting of two independent stems/words (*kuć-e-vlasnik* 'house owner'), and synthetic compounds (a combination of composition and suffixation, including zero suffixation): *pučk-o-škol-ac* 'elementary scholar' (← *pučka škola* 'elementary school'; **školac* does not exist as single word), *nogomet* ('football; lit. leg-o-sweep- \emptyset '), *časopis* 'periodical; lit. time-o-write- \emptyset ' (there is no word **met* or **pis*). Pure compounds and synthetic compounds with zero suffix are often loan translations of German compounds (from the 19th century or earlier), but can also be traced back to the influence of Hungarian and other languages.

3.1.1. Determinative compounds

Croatian nominal compounds are predominantly determinative. The first stem modifies the meaning of the head. Determinative compounds are divided into two major categories: pure compounds and synthetic compounds. Pure compounds are not as numerous as synthetic compounds.

a) Pure compounds comprise the following structural types:

N+N: *brod-o-graditelj* 'shipbuilder';

A+N: *bjel-o-kost* 'ivory; lit. white-o-bone', *brzotisak* 'fast print(ing)', *zloduh* 'demon; lit. evil-spirit';

Pron+N: *sam-o-ubojstvo* 'suicide; lit. self-o-murder', *samohvala* 'self-praise';

Num+N: *dv-o-vlast* 'diarchy; lit. two-o-power'; *pol-u-istina* 'half-truth'.

There are also some exocentric compounds, e.g., *palikuća* 'arsonist; lit. to set fire-house', *vadičep* 'corkscrew; lit. take out-cork', *gorostas* 'giant; lit. mountain-stature', *nosorog* 'rhinoceros; lit. nose-horn', etc.

Composition seems to be activated by so-called determinative semi-compounds like *spomen-ploča* 'memorial plaque', *biser-grana* 'pearl necklace', *džez-orkestar* 'jazz or-

chestra', *bruto-prihod* 'gross income', *neto-iznos* 'net amount', *žiro-račun* 'transfer account', *video-zapis* 'video recording', *audio-kaseta* 'audio cassette'. Although the (non)writing of hyphens is sometimes determined only by convention, standard Croatian gives precedence to hyphenated spelling. In Croatian it is neither usual, nor normatively accepted to express an attributive relationship by means of a preposed noun, especially indeclinable foreign words. In recent times, English (and English models) has had an opposite influence on linguistic practice, cf. names such as *Motovun film festival* instead of the usual adjectival attribution: *Motovunski filmski festival*. In colloquial expressions and in the language of young people, one can also find denominations such as *brak tip* ('marriage type'), or the noun *mrak* 'darkness' in adjectival meaning, e.g., *mrak cure* ('cool girls; lit. darkness girls').

Bound stems, mostly of foreign origin, as first or second components are also common, e.g., *aerodinamika* 'aerodynamics', *biogeneza* 'biogenesis', *kartoteka* 'card files', *romboid* 'rhomboid', *ekologija* 'ecology', *parkomat* 'parking meter'.

b) Synthetic compounds

Nominal synthetic compounds can be formed with the zero suffix or with formally expressed suffixes and convey similar categorial meanings as derivatives. They usually have an interfix (*o*).

Formations with verbal second stems and a zero suffix are represented by the following types:

N+V+ \emptyset : abstract nouns, e.g., *zemljopis* 'geography; lit. land-*o*-describe- \emptyset ', *kitolov* 'whaling; lit. whale-*o*-catch/hunt- \emptyset '; concrete nouns: *zemljovid* 'map; lit. land-*o*-see- \emptyset ', *tlocrt* 'ground plan; lit. ground-*o*-draw- \emptyset ', *nogomet* 'football; lit. foot-*o*-sweep- \emptyset ', *zrakoplov* 'aircraft; lit. air-*o*-navigate- \emptyset ', *vodopad* 'waterfall', *vodoskok* 'fountain; lit. water-*o*-jump- \emptyset ';

Adv+V+ \emptyset : *brzjav* 'telegram; lit. quickly-announce- \emptyset ', *dalekozor* 'spyglass; lit. far-see- \emptyset ';

Pron+V+ \emptyset (occasionally): *samokres* 'automatic pistol; lit. self-strike fire- \emptyset ', *svaštožder* 'omnivore; lit. everything-devour- \emptyset ';

Num+V+ \emptyset : *jednopreg* 'one-horse carriage; lit. one-harness- \emptyset ', *dvosjed* 'two-seater', *dvogled* 'binoculars';

Formations with verbal second stems and formally expressed suffixes belong to a broader spectrum of categories, e.g.,

Abstract nouns

N+V+*je*: *bogoljublje* 'devotion; lit. God-*o*-love-ABSTR', *bogoštovlje* 'worship; lit. God-*o*-worship-ABSTR';

N+V+*ka*: *čedomorka* 'infanticide; lit. babe-*o*-murder-ABSTR';

A+V+*je*: *krivosuđe* 'misjudgement; wrong-*o*-judge-ABSTR';

Pron+N+*je*: *samoljublje* 'self-love';

Result nouns

A+V+*ina*: *novotvorina* 'neoplasm; lit new-*o*-form-SUFF';

N+V+*ina*: *um-o-tvorina* 'masterpiece; lit. mind-*o*-create-SUFF'.

Personal and non-personal animate and inanimate nouns (with agent meaning)

N+V+*a*: *kavopija* 'coffee-drinker'; *štetočina* 'vermin; lit. damage-*o*-make-SUFF';

N+V+*ac*: *čovjekomrzac* 'misanthrope; person-*o*-hate-SUFF', *ledolamac* 'ice-breaker';

N+V+*ica*: *Bogorodica* 'Mother of God; lit. God-*o*-give-birth-SUFF'; *konjokradica* 'horse thief; lit. horse-*o*-steal-SUFF' m.;

N+V+ka: *bogomoljka* ‘praying mantis; lit. God-o-pray-SUFF’, *mišolovka* ‘mousetrap’;
 Adv+V+ka: *brzometka* ‘repeating rifle; lit. quickly-fire-SUFF’, *radodajka* ‘easy lay
 (f.); lit. willingly-give-SUFF’;

Num+V+ka: *prvotelka* ‘cow calving for the first time; lit. first-o-calve-SUFF’; *dvorot-
 ka* ‘tree, plant, bearing fruit twice a year’.

Formations with nominal, adjectival, and numeral second stems and
 formally expressed suffixes are mostly personal and non-personal nouns, occasionally
 place nouns, collective and abstract nouns:

N+N+je: *vinogorje* ‘wine-growing hills’;

N+N+ka: *polnočka* ‘midnight mass’;

A+N+ac: *pučkoškolac* ‘elementary school pupil’, *Crnogorac* ‘Montenegrin’ (← *Crna
 Gora* ‘Montenegro’);

A+N+-aš: *crnokošuljaš* ‘member of the Blackshirts or other extremist organisations
 whose followers wear black shirts; lit. black-o-shirt-SUFF’;

A+N+ik: *krivokletnik* ‘perjurer; lit. wrong-o-swearing-oath-SUFF’;

A+N+ina: *pustopoljina* ‘wasteland; lit. abandoned-o-land-SUFF’;

A+N+je: *bistrumlje* ‘clear-mindedness’, *nizozemlje* ‘lowlands’;

A+N+ka: *bjelouška* ‘grass snake; lit. white-o-ear-SUFF’, *crnoglavka* ‘warbler (bird);
 lit. black-o-head-SUFF’;

Num+N+ac: *prvoškolac* ‘first-grader; lit. first-o-school-SUFF’, *dvomotorac* ‘twin-en-
 gine plane’;

Num+N+aš: *drugoligaš* ‘second-division team’, *dvotaktaš* ‘two-stroke engine’;

Num+N-ica: *dvokolica* ‘vehicle with two wheels’;

Num+N+je: *sedmodnevlje* ‘week; lit. seven-o-day-SUFF’;

Num+N+je: *desetljeće* ‘decade; lit. ten-0-year-SUFF’, *dvotočje* ‘colon; lit. two-o-point-
 SUFF’;

Num+N+ka: *jednočinka* ‘one-act play; lit. one-o-act-SUFF’, *jednometka* ‘single-shot
 rifle’, *osmoljetka* ‘primary school; lit. eight-o-year-SUFF’;

Num+N+nik: *dvoglasnik* ‘diphthong’.

3.1.2. Copulative compounds

Copulative nominal compounds (e.g., *bogočovjek* ‘god-man’) are rare and not typical
 of Croatian word-formation. Nevertheless, some of them can be very common, e.g.,
strahopoštovanje ‘awe; lit. fear-respect’, cf. German *Ehrfurcht*. There are some copula-
 tive compounds consisting of deverbal nouns (*kupnja-prodaja* ‘buying and selling’) be-
 sides formations with a verbal stem in the first part (V-o-N): *kup-o-prodaja* ‘buying and
 selling; lit. buy-o-delivery’, *prim-o-predaja* ‘delivery; lit. receive-o-delivery’ which are
 also regarded as copulative compounds.

A copulative relationship also exists in (rare) compounds like *grad-država* ‘city-state’
 (i.e. both a city and a state), *točka-zarez* ‘semi-colon; lit. full stop-comma’, though such
 compounds differ from other copulative compounds in that their first component is de-
 clinable (e.g., genitive: *grada-države*, *točke-zareza*).

3.2. Adjectival compounds

3.2.1. Determinative adjectival compounds

“Pure” adjectival compounds are represented by compounds with bound stems, e.g., *polu-* ‘semi-’ (*polupismen* ‘semi-literate’), *vele-* ‘large(ly)’ (*velevrijedan* ‘highly valuable’), also *visoko-* ‘high(ly)’ (*visokomoralan* ‘highly moral’). The basic meaning is determined by the second stem.

Relational compound adjectives are generally formed with *-ski/-čki* or *-ni*. They refer to an A/Num/Pron+N syntagm, e.g., *donjogradski* (← *donji grad* ‘lower town’), *sjevernoamerički* (← *sjeverna Amerika* ‘North America’), *dvotrećinski* (← *dvije trećine* ‘two thirds’), *svakonoćni* (← *svaka noć* ‘every night’) or to a N+N-GEN syntagm, e.g., *brakorazvodni* ‘divorce (adj.)’ (← *razvod braka* ‘divorce; lit. divorce marriage-GEN’). The latter example can be regarded as a synthetic compound (neither **brakorazvod* nor **razvodni* exists as independent word).

The same applies to the following examples of productive types of synthetic compounds (mainly qualitative adjectives). They are most often derived with the suffix *-an* or the zero suffix (symbolized as \emptyset). When the second stem is nominal, the first is generally an adjective or a numeral. The two components can be linked with a linking vowel (*o* or *e*):

A+N+SUFF: *bistr-o-um-an* ‘clear minded’, *bjelokos* ‘white-haired’, *krupnozrn* ‘coarse-grained’, *raznolik* ‘varied; lit. different-o-form- \emptyset ’, *čovjekolik* ‘anthropomorphous’;

Adv+N+SUFF: *višeslojan* ‘multi-layered’, *višestazan* ‘multi-laned’;

Pron+N+SUFF: *istoimen* ‘homonymous; lit. same-o-name- \emptyset ’, *višestran* ‘multilateral’;

Num+N-SUFF: *prvorazredan* ‘first-class (adj.)’, *jednook* ‘one-eyed’. The first stem can also be bound, e.g., *bifazan* ‘biphasic’, *bipolaran* ‘bipolar’;

N+V+SUFF: *savjetodavan* ‘advisory; lit. advice-o-give-SUFF’, and (occasionally)

Pron+V+SUFF: *istoznačan* ‘synonymous; lit. same-o-mean-SUFF’.

Exocentric adjective compounds are of the following types:

N+N+ \emptyset : *vjetronog* ‘fleet-footed; lit. wind-o-foot- \emptyset ’;

A+N+ \emptyset : *zlatoust* ‘eloquent; lit. golden-o-mouth- \emptyset ’ (a calque of Greek *chrysostomos*);

Adv+V+ \emptyset : *brzopleť* ‘hasty; lit. quickly-o-plait- \emptyset ’;

Pron+N+ \emptyset : *svojeđlav* ‘stubborn; lit. own-e-head- \emptyset ’. Exceptionally also:

V+N+ \emptyset : *vijoglav* ‘impetuous; lit. chase-o-head- \emptyset ’, *vrtođlav* ‘giddy; lit. turn round-o-head- \emptyset ’.

There is a number of marginal instances, which are regarded as juxtaposition (merger) of the components of a syntagm, e.g., *boguugodan* ‘God-pleasing; lit. God-DAT-pleasing’.

3.2.2. Copulative adjectival compounds

Copulative compounds connect two adjectives (with or without a linking vowel), e.g., *crven-o-plavi* ‘red and blue’, *crn-o-bijeli* ‘black and white’, *spoznajn-o-doživljajni* ‘cognitive-experiential’; cf. also *Babić-Mogušev pravopis* ‘Babić’s and Moguš’s Orthography; lit. Babić-Moguš-POSS.ADJ orthography’, *rusk-o-ukrajinska granica* ‘Russian-

Ukrainian border', *vojno-politički pregled* 'military and political review', as opposed to *vojnopolitički pregled* without a hyphen, which is the adjective to *vojna politika* 'military policy'. In such adjectives, only the second stem is declinable. Generally, they are not lexicalized. They are written with hyphens.

Lexicalized copulative adjectival compounds (without hyphens) are not numerous, but can be frequent in use, e.g., *gluhonijem* 'deaf and mute', *danonoćni* 'night and day (adj.)', *zlopak* 'wicked and evil'.

3.3. Verbal compounds

Verbal composition is a marginal means of Croatian word-formation. There are some cases of juxtaposition, e.g., *dangubiti* 'to waste time; lit. day-lose', and circumfixed verbs based on a nominal phrase, e.g., *o-dobr-o-volj-iti* 'to cheer up; lit. o-(prefix with ornative meaning)-good-o-will-SUFF' (← *dobra volja* 'good will'), *o-zl-o-glas-iti* 'to disparage; lit. o-bad-o-voice-SUFF' (← *zao/zli glas* 'bad reputation').

3.4. Adverbial compounds

Adverbial compounds are mainly represented by pronominal adverbs (e.g., *koje-kako* 'somehow, in whatever way; lit. which-how'), by reduplication (e.g., *katkada* 'sometimes; lit. when-when', *gdjegdje* 'here and there; lit. where-where'). Numerals can also participate in adverbial compounds with the element *put* in the meaning 'time': *jedanput* 'one time', *dvaput* 'two times'. In some cases compounding is accompanied by suffixation: most commonly with the suffixes *-ke*, *-(i)ce*, e.g., *dvonoške* 'on two legs' (← *dvije noge* 'two legs'), *stranputice* 'in the wrong way' (← *stran put* 'strange, wrong way').

For prepositional juxtapositions such as *sasvim* 'completely; lit. with-all', *zatim* and *potom* 'afterwards; lit. after-this', *zato* 'therefore; lit. for-this', *doduše* 'in truth; lit. to-soul', *unazad* 'backwards; lit. to-back', see also section 4.4.

Copulative adverbial compounds are composed of adverbs which generally have opposite meanings. These are written with a hyphen: *amo-tamo* 'to and fro', *brže-bolje* 'faster and better', *gore-dolje* 'up and down', *manje-više* 'more or less', *danas-sutra* 'today or tomorrow', etc.

4. Derivation

4.1. Nominal derivation

Stems of derived nouns can go back to various word classes, e.g., nouns (*brodovlje* 'shipping' ← *brod* 'ship'), adjectives (*mladost* 'youth' ← *mlad* 'young'), verbs (*plivanje* 'swimming' ← *plivati*). In the majority of cases, grammatical gender can be determined according to the suffix.

Although individual suffixes are associated with specific meanings and grammatical categories, such correspondences are not absolute. For example, with the suffix *-ica* it is possible to derive female nouns from masculine nouns (*slušateljica* ‘female listener’ ← *slušatelj*), feminine diminutives (*curica* ‘little girl’ ← *cura* ‘girl’), non-personal nouns like *slikovnica* ‘picture book’ (← *slika* ‘picture’), and nouns that refer to both masculine and feminine persons such as *izdajica* ‘traitor’ (← *izdati* ‘to betray’).

In individual cases, it is not possible to mark the boundary between suffix and stem with any certainty or to determine whether the stem is nominal, adjectival or verbal, e.g., *zlobnik* ‘malicious person’ could be analyzed as *zlob-nik* (N-*nik* ← *zloba* ‘malice’) or *zlobn-ik* (A-*ik* ← *zloban* ‘bad, nasty’), or, another example, *kradljivac* ‘thief’ as *krad-ljivac* (V-*ljivac* ← *krasti* ‘to steal’) or *kradljiv-ac* (A-*ac* ← *kradljiv* ‘thievish, nimble-fingered’).

4.1.1. Denominal nouns

Nouns formed with prefixes are less frequent than prefixal-suffixal nouns. Nearly one third of Croatian prefixes are of foreign origin, e.g., *anti-*, *hiper-* ‘hyper-’, *inter-*, etc. The majority of the other prefixes correspond to prepositions, e.g., *među* ‘between, among’, *na* ‘on’, *nad* ‘over’, etc. Prefixes that do not have a corresponding preposition are, e.g., *pra-* ‘proto-’, *pro-* ‘through’, *raz-* ‘dis-, apart’. The negation *ne* (and the negative conjunction *ni*) also function as prefixes.

Prefixes express negation (*ne-sporazum* ‘misunderstanding’, *disharmonija* ‘disharmony’), privative meaning (*a-teizam* ‘atheism’, *bez-voljnost* ‘displeasure’), opposition or antagonism (*antitalent* ‘anti-talent’, *antikrist* ‘Antichrist’, *protu-napad* ‘counter-attack’, *protu-vrijednost* ‘countervalue’, *protu-dokaz* ‘evidence to the contrary’); hierarchy (*nad-moć* ‘superior strength’, *pod-časnik* ‘non-commissioned officer’, *do-zapovjednik* ‘vice-commander’, *pro-rektor* ‘pro-vice-chancellor’), temporal and local relations (*pra-čovjek* ‘prehistoric man’, *pred-igra* ‘foreplay’, *među-igra* ‘intermezzo’, *pred-govor* ‘foreword, preface’, *postkomunizam* ‘post-Communism’), intensification (*hiperinflacija* ‘hyperinflation’, *superzvijezda* ‘superstar’), and others, e.g., *su-autor* ‘co-author’, *su-radnik* ‘staff member, co-worker’, *pa-zvuk* ‘interference noise’, *nus-proizvod* ‘by-product’.

Suffixation is most productive in the formation of nouns.

Denominal personal nouns denote persons according to their professions, occupations, characteristic features, etc., e.g.: *mes-ar* ‘butcher’ (← *meso* ‘meat’), *povjesničar* ‘historian’ (← *povijest* ‘history’), *gitar-ist* ‘guitarist’ (← *gitara* ‘guitar’), *marksist* ‘Marxist’. The native suffix *-aš* is often connected with nominal stems from the field of sports and music, e.g., *nogometaš* ‘footballer’ (← *nogomet* ‘football’), *orguljaš* ‘organist’ (← *orgulje* ‘organ’). Persons can be also denoted according to a characteristic feature (*brk-ajlija* ‘man with a long moustache’ ← *brk* ‘moustache’, the suffix is a Turkism). Denominal names of inhabitants are generally formed with the suffixes *-ac* or *-anin*, or less frequently *-ak*: *Nijemac* ‘German’, *Australac* ‘Australian’, *Bečanin* ‘Viennese’, *Bošnjak* ‘Bosniak’. From these, the following female forms are derived: *Njem-ica*, *Austral-ka*, *Bečan-ka*, *Bošnjak-inja*, and *Rus* → *Rus-kinja*, *Hrvat* ‘Croat’ → *Hrvat-ica*. The suffix *-ka* is also used to derive female personal names from male ones: *Ivan* →

Ivanka. Most frequent suffixes for female denominal nouns are *-ica* and *-inja*: *grofica* ‘countess’ (← *grof* ‘count’), *biologinja* ‘biologist’ f. (← *biolog*), *svjedokinja* ‘witness’ f. (← *svjedok*).

Non-personal nouns: *snjeg-ović* ‘snowman’ (← *snijeg* ‘snow’), *limun-ada* ‘lemon juice’ (← *limun* ‘lemon’), *prst-en* ‘ring’ (← *prst* ‘finger’), *kap-uljača* ‘hood’ (← *kapa* ‘cap’), *sastav-nica* ‘component’ (← *sastav* ‘structure, consistence’), *petrolej-ka* ‘petrol lamp’ (← *petrolej* ‘lamp-oil’), *broj-ka* ‘numeral’ (← *broj* ‘number’);

Denominal abstract nouns with the suffix *-stvo* are frequent: *prijateljstvo* ‘friendship’ (← *prijatelj* ‘friend’), *državljanstvo* ‘nationality’ (← *državljanin* ‘citizen’), *božanstvo* ‘divinity’ (← *Bog* ‘God’);

Place nouns: *kav-ana* ‘café’ (← *kava* ‘coffee’), *stroj-arnica* ‘engine room’ (← *stroj* ‘engine’), *kokoš-injac* ‘henhouse’ (← *kokoš* ‘hen’), *ognj-ište* ‘fireplace’ (← *oganj* ‘fire’), *grob-lje* ‘cemetery’ (← *grob* ‘grave’);

Collective nouns: *osob-lje* ‘staff’ (← *osoba* ‘person’), *momč-ad* ‘team’ (← *momak* ‘young man, boy’), *cvijeć-e* (suffix *-je*; *j* causes the palatalization of the final consonant of the stem: *t+j > ć*) ‘flowers’ (← *cvijet* ‘flower’), *drveć-e (-je)* ‘trees’ (← *drvet-a* (genitive) of *drvo* ‘tree’), *zvj-er-ad* ‘animals’ (← *zvijer* ‘animal’), *potom-stvo* ‘descendants’ (← *potomak* ‘descendant’);

Diminutives (often with the connotation of tenderness and familiarity) of masculine nouns are predominately derived with the suffixes *-ić*, *-ac* and *-ak* (*momčić* ‘boy’ ← *momak* ‘guy’, *krušac* ‘small loaf’ ← *kruh* ‘bread’, *listak* ‘leaflet’ ← *list* ‘sheet of paper’), for feminine nouns the main suffixes end in *-ca* (*grančica* ‘twig’ ← *grana* ‘branch’), while for neuter nouns *-ce* predominates (*brdašce* ‘hillock’ ← *brdo* ‘hill’). The suffix *-ka* is used in the formation of feminine diminutives (*kokoška* ‘(small) hen’ ← *kokoš* ‘hen’, *granka* ‘(small) branch’ ← *grana* ‘branch’);

Augmentatives are formed with *-ina* (*brodina* ‘big ship’ ← *brod* ‘ship’). With words in *-ina*, depending on the stress, there can be a distinction between augmentatives (that often have a pejorative meaning) and types of meat, cf., e.g., *konjëtina*, a pejorative term for a horse (*konj*) and *kònjëtina* ‘horsemeat’.

Nouns derived by circumfixation denote persons, animals, places, etc., e.g., *po-mor-ac* ‘seaman’ (← *more* ‘sea’), *bes-kril-ac* ‘animal without wings’ (← *krila* ‘wings’), *po-vjetar-ac* ‘breeze’ (← *vjetar* ‘wind’), *za-sel-ak* ‘hamlet’ (← *selo* ‘village’), *nad-im-ak* ‘nickname’ (← *ime* ‘name’), *po-glav-lje* ‘chapter’ (← *glava* ‘head’), *raz-dob-lje* ‘period’ (← *dob(a)* ‘time, period’), *bez-[z]akonj-e (-je)* ‘lawlessness’ (← *zakon* ‘law’).

4.1.2. Deadjectival nouns

Examples for deadjectival nouns and their suffixes are:

Abstract nouns: *mlad-ost* ‘youth’ (← *mlad* ‘young’), *dostojan-stvo* ‘dignity’ (← *dostojan* ‘dignified’), *materin-stvo* ‘motherhood’ (← *materin* ‘mother’s’), *prav-ac* ‘direction’ (← *prav* ‘right, correct’), *hripav-ac* ‘whooping cough’ (← *hripav* ‘wheezy’), *žutica* ‘jaundice’ (← *žut* ‘yellow’), *slinavka* ‘foot-and-mouth disease’ (← *slinav* ‘salivary’), *upisn-ina* ‘registration fee’ (*upisan* ← ‘registered’), *očev-ina* ‘patrimony inheritance’ (← *očev* ‘father’s’), *izobilj-e* (the suffix *-je* causes the palatalization of the final consonant of the stem) ‘abundance, exuberance’ (← *izobilan* ‘large, substantial, pro-

fuse'), *milosrd-e* 'mercy' (← *milosrd-an* 'merciful'), *poštenje* 'sense of honour' (← *pošten* 'honourable'), *zdrav-lje* (with epenthetic *l* before *j*) 'health' (← *zdrav* 'healthy');

Personal nouns: *stran-ac* 'foreigner' (← *stran* 'strange'), *pijan-ac/pijan-ica* 'alcoholic, drinker' (← *pijan* 'drunken'), *nobelov-ac* 'Nobel laureate' (← *Nobelov* 'Nobel's'); *Nobelova nagrada* 'Nobel prize'), *mudrac* 'wise man' (← *mudar* 'wise'), *intelektual-ac* 'intellectual (person)' (← *intelektualan* 'intellectual'), *crn-ka* 'dark woman, brunette' (← *crn* 'black, dark'), *čud-ak* 'eccentric' (← *čudan* 'strange'), *mučen-ik* 'martyr' (← *mučen* 'tortured'), *tup-an* 'fool' (← *tup* 'blunt'), *divlj-ak* 'savage' (← *divlji* 'wild'), *grub-ijan* 'brute' (← *grub* 'rough'), *mlad-ić* 'young man' (← *mlad* 'young'), *slab-ić* 'weakling' (← *slab* 'weak'), *kraljev-ić* 'prince' (← *kraljev* 'king's'). Some derivatives in *-ić* (the suffix is mainly used for diminutives) can express tenderness and irony;

Non-personal nouns: *staklen-ka* 'jar' (← *staklen* 'glass' adj.), *real-ka* 'secondary school' (← *realna škola*), *zubat-ac* 'Dentex vulgaris' (fish) (← *zub-at* 'toothed'), *dokumentar-ac* 'documentary (film)' (← *dokumentaran* 'documentary'), *piskav-ac* 'sibilant' (← *piskav* 'fizzy, sibilant'), *kruškov-ac* 'pear brandy' (← *kruškov* 'of a pear'), *živ-ac* 'nerve' (← *živ* 'living, alive'), *bakrenjak* 'copper coin' (← *bakren* 'copper'), *čist-ina* 'glade' (← *čist* 'clear'), *pčelinjak* 'apiary' (← *pčelin* 'bee' adj.), *gorč-ica* 'bitterwort; mustard' (← *gorak* 'bitter'), *modr-ica* 'haematoma' (← *modar* 'blue').

4.1.3. Deverbal nouns

Deverbal nouns belong to the following categories:

Action nouns: *tvor-ba* 'formation' (← *tvoriti* 'to form'), *splet-ka* 'intrigue' (← *splesti* 'to intrigue'), *kupov-ina* 'buying, purchase' (← *kupovati* 'to buy'), *borav-ak* 'stay' (← *boraviti* 'to stay'), *blok-ada* 'blockade' (← *blokirati* 'to block'), *centralizacija* 'centralization' (← *centralizirati* 'to centralize'), *priključ-enje* 'connection' (← *priključiti* 'to connect'), *spozna-ja* 'cognition' (← *spoznati* 'to cognize'). The suffix *-je* is unproductive, e.g., *primir-je* 'truce' (← *primiriti* 'to soothe').

The following examples, where the nominal (abstract) meaning is expressed by the ending (*-a* or zero suffix) are also regarded as results of derivation, not as conversion: *dobav-a* 'supply' (← *dobaviti* 'to supply'), *zamjen-a* 'replacement' (← *zamijeniti* 'to replace'); *napad-Ø* (← present stem *napad-* of *napasti* 'to attack').

Agent nouns are derived by means of various suffixes, e.g., *sluša-telj/sluša-lac* 'listener' (← *slušati* 'to listen'), *pis-ac* 'writer' (← *pisati* 'to write'), *rad-nik* 'worker' (← *raditi* 'to work'), *jah-ač* 'rider' (← *jahati* 'to ride'), *zid-ar* 'bricklayer' (← *zidati* 'to build'), *etiketir-ka* 'female labeller' (← *etiketirati* 'to label'), *pljačk-aš* 'robber' (← *pljačkati* 'to rob'). Nouns with the suffix *-onja* are pejoratively marked, e.g., *žderonja* 'glutton' (← *žderati* 'to gorge');

Result nouns: *krivotvor-ina* 'forgery' (← *krivotvoriti* 'to falsify'), *odrez-ak* 'steak' (← *odrezati* 'to cut'), *otpad-ak* 'trash' (← *otpasti* 'to fall off'), *pec-ivo* 'rolls' (← *peći* 'to bake'), *napis* 'inscription' (← *napisati* 'to write (down)'), *pis-mo* 'letter' (← *pisati* 'to write'), *čestit-ka* 'greeting card' (← *čestitati* 'to greet'), *recenz-ija* 'review' (← *recenzirati* 'to review');

Object nouns: *čit-anka* 'reader, reading book' (← *čitati* 'to read'), *dodat-ak* 'addition, supplement' (← *dodati* 'to add'), *cit-at* 'quotation' (← *citirati* 'to quote, cite').

Stems in some deverbal object nouns can be interpreted as passive (adjective) stems, e.g., *čitan-ka*. Numerous personal object nouns are formed from passive adjectives, e.g., *ranjen-ik* ‘wounded person’ (← *raniti* ‘to wound’), *kaznjen-ik* ‘punished person’ (← *kazniti* ‘to punish’);

Instrument nouns: *cjep-ivo* ‘vaccine’ (← *cijepiti* ‘to vaccinate’), *označi-lac* ‘marker’ (← *označiti* ‘to mark’), *sluša-lica* ‘headphone’ (← *slušati* ‘to listen’), *per-ilica* ‘washing machine’ and ‘dishwasher’ (← stem *per-* of *prati* ‘to wash’), *pis-ač* ‘printer’ (← *pisati* ‘to write’), *valj-ak* ‘roller’ (← *valjati* ‘to roll’), *crp-ka* ‘pump’ (← *crpsti* ‘to pump’), *ventil-ator* ‘fan, ventilator’ (← *ventilirati* ‘to ventilate’), *uspor-nik* ‘sleeping policeman; lit. lying policeman’ (← *usporiti* ‘to slow down’);

Place nouns: *kupa-onica* ‘bath room’ (← *kupati se* ‘to take a bath, bathe’), *sjed-ište* ‘seat’ (← *sjediti* ‘to sit’), *naselj-e* (suffix *-je* with *j* palatalizing the final *l* of the stem where it is reflected in spelling) ‘settlement’ (← *naseliti* ‘to settle’).

4.2. Adjectival derivation

Adjectival word-formation is considered to be the most complicated topic in Croatian derivation. In older Croatian grammar guides, adjectives are divided into descriptive, material and possessive. Today, they are generally divided into relational (including possessive adjectives with the suffixes *-in*, *-ov*, *-ev*; *-(s)ki*, *-ni*, *-ji*, *-ći*) and descriptive or qualitative (*-an*, *-en*, *-av*, *-at*, *-ast*, *-iv*, *-it*, *-ak*, *-cat*, *-ast*). The suffix *-ski* is one of the most productive adjectival suffixes. The adjective *porculan-ski* in *porculanska šalica* ‘porcelain cup’ is a relational adjective (cf. the synonymous expression *šalica od porculana* ‘a cup of porcelain’), but in *porculanska industrija* ‘porcelain industry’ it is regarded as a descriptive adjective. When adjectives with suffixes of relational adjectives have a figurative meaning, e.g., *mačje (-ji) oči* ‘cat’s eyes’, they are regarded as belonging to the category of descriptive adjectives (expression of similarity).

In Croatian, there exist indefinite and definite forms of descriptive adjectives: *dobar* – *dobri* ‘good’, *crn* – *crni* ‘black’, *crven* – *crveni* ‘red’. Indefinite descriptive adjectives with the suffix *-an* have definite correlations with the suffix *-ni* (*krasan* – *krasni* ‘wonderful’). The relational adjective from *mrak* ‘darkness’ is *mračni*, but in *mračni dan* ‘dark day’ *mračni* is a descriptive adjective in its definite form. This is the reason why in dictionaries and old grammars the suffixes *-an* and *-ni* are poorly differentiated, if at all. Unambiguous demarcation between relational and descriptive adjectives on formal criteria is not possible in all cases.

4.2.1. Denominal adjectives

Suffixes are connected with individual stems according to formal or semantic criteria. In the majority of cases, different suffixes serve a semantic differentiation, e.g., *general-ov* (possessive adj.) ‘general’s’ – *general-ski* ‘related to generalship’. However, there are some variants of relational adjectives with a variety of suffixes that do not involve any semantic difference: *akustični* – *akustički* ‘acoustic’, *imenični* – *imenički* ‘nominal’, *fleksijski* – *fleksivni* ‘inflectional’. Some relational adjectives can refer to different nouns

with an identical root, e.g., *kovački* refers to *kovač* ‘blacksmith’ and *kovanje* ‘forge, forging’, and the adjective *filozofski* ‘philosophical’ to both *filozof* ‘philosopher’ and *filozofija* ‘philosophy’. There is also an adjective *filozofijski* ‘philosophical’ (derived from *filozofija*), but it is not used systematically.

The choice of the suffix can be affected by the discrimination of synonyms. The most frequent relational adjective derived from the noun *izvor* ‘spring’ is today *izvorski* (*izvorska voda* ‘spring water’, not *izvorna voda*) because the adjective *izvorni* is the definite form of the descriptive adjective *izvoran* ‘original’. Stems of descriptive adjectives are most frequently nominal, but they can also be derived from other word classes, including verbs. Examples: *limun-ov sok* ‘lemon juice’, *jabuč-ni sok* ‘apple juice’, *krav-lji sir* ‘cheese from cow’s milk’, *zagreb-ački trg* ‘square in Zagreb’, *pristup-ni podatak* ‘access information’, *benzin-ski motor* ‘gasoline engine’, *zim-skilljet-ni dan* ‘winter/sommer day’, *živč-an* ‘tense, nervous’ (← *živac* ‘nerv’), *bakr-en* ‘cupreous’ (← *bakar* ‘copper’). Adjectives expressing possessive meaning, are, for instance, *pljesn-iv* ‘mouldy’ (← *pljesan* ‘mould’), *tajn-ovit* ‘mysterious’ (← *tajna* ‘secret’), *bradavič-av* ‘wart’ (← *bradavica* ‘wart’); the suffix *-at* is combined with the meaning of abundance, e.g., *nosat* ‘nosy’ (← *nos* ‘nose’). The suffix *-ast* expresses similarity, e.g., *bradavič-ast* ‘papillary’ (← *bradavica* ‘wart’), etc.

Prefixal-suffixal denominal adjectives are motivated by prepositional phrases, e.g., *bez-idej-an* ‘uninspired’ (← *bez ideje* ‘without an idea’), *bez-imen-Ø* ‘nameless’ (← *bez imena* ‘without name’), *preko-mor-ski* ‘overseas’ (← *preko mora* ‘over seas’), *do-slovan* ‘literally’ (← *do slova* ‘verbal; lit. to the word’), *ispod-prosječ-an* ‘below average’ (← *ispod prosjeka* ‘below the average’).

4.2.2. Deadjectival adjectives

Prefixation modifies the meaning in various ways, e.g., negation: *ne-iskren* ‘dishonest’; deprivation: *bez-gotovinski* ‘cashless’; augmentation: *pre-bogat* ‘very rich’, *pre-divan* ‘wonderful’ (← *divan* ‘beautiful’); diminution, attenuation: *nagluh* ‘hard of hearing’ (← *gluh* ‘deaf’), *o-manji* ‘smallish’ (← *manji* ‘smaller’), *poveći* ‘largish’ (← *veći* ‘larger’), *priglup* ‘simple-minded’ (← *glup* ‘silly’); intensification: *pro-hladan* ‘chilly’ (← *hladan* ‘cold’), *su-lud* ‘insane’ (← *lud* ‘mad’). The prefixation of a superlative with *po-* reduces the level of intensification: *po-najbolji* ‘one of the best’ (← *najbolji* ‘best’).

Suffixation conveys approximative, diminutive and augmentative (intensifying) meaning: *maglen-ast* ‘fog-like, not clear’ (← *maglen* ‘foggy’), *srebren-ast* ‘silver-like, silvery’ (*srebren* ‘silver’ adj.); *crven-kast* ‘reddish’ (← *crven* ‘red’), *gork-ast* ‘bitterly’ (← *gorak* ‘bitter’), *slab-ašan* ‘weakly, weakish’ (← *slab* ‘weak’); *pun-cat* ‘brimful’ (← *pun* ‘full’). In some deadjectival adjectives with different suffixes there is no evidence of modificational or semantic shift, e.g., *mlač-an* ‘lukewarm’ (← *mlak* ‘id.’).

4.2.3. Deverbal adjectives

Deverbal prefixal adjectives are semantically related to the action of the verb. Prefix derivatives are formed with the negation *ne-* + passive participle (“verbal adjectives” in

Croatian grammatical terminology): *neangažiran novinar* ‘disengaged journalist’, *neviđen slučaj* ‘unprecedented case’, *neprepoznat potencijal* ‘unrecognized potential’.

Productive suffixes are only *-iv* and *-av*, which often convey a modal meaning (possibility): *dodir-ljiv* ‘touchable’ (← *dodirnuti* ‘to touch’), *smrd-ljiv* ‘smelly’ (← *smrdjeti* ‘to stink’), *blist-av* ‘glistening’ (← *blistati* ‘to glitter’). Other suffixes are rare, e.g., *pit-ak* ‘drinkable’ (← *piti* ‘to drink’), *domišlj-at* ‘imaginative’ (← *domišljati se* ‘to think’), *srd-it* ‘angry’ (← *srditi se* ‘to be angry’), *krivud-ast* ‘curved, winding’ (← *krivudati* ‘to meander’), *diš-ni put* ‘respiratory tract’ (← *disati* ‘to breathe’), *poslov-an čovjek* ‘businessman’ (← *poslovati* ‘to operate’). Some deverbal adjectives are derived from participles: *izuzet-an* ‘exceptional’, *poduzet-an* ‘enterprising’.

The suffix *-aći* in deverbal adjectives is unproductive, *brij-aći* ‘shaving’ (← *brijati* ‘to shave’), *kup-aći* ‘swimming’ (← *kupati* ‘to bathe’).

Some deverbal adjectives with different suffixes have one and the same meaning: *smrd-ljiv* – *smrd-ljav* ‘smelly’, *krivud-av* – *krivud-ast* ‘curved, winding’, *znoj-av* – *znoj-an* ‘clammy’ (← *znojiti se* ‘to sweat’), in non-standard *čit-ljiv* – *čit-ak* ‘readable’ (← *čitati* ‘to read’).

4.3. Verbal derivation

4.3.1. Denominal verbs

Denominal verbs are formed with suffixes in *-ati* and *-iti*. Their meaning is related to the base noun. Most common are the following categories:

- a) ‘to be N’: *kralj-evati* ‘to reign’ (← *kralj* ‘king’);
- b) ‘to become N’: *hrđ-ati* ‘to rust’ (← *hrđa* ‘rust’);
- c) ‘to turn into N’: *komad-ati* ‘to cut up into pieces’ (← *komad* ‘piece’);
- d) ‘to do/make N’: *snijež-iti* ‘to snow’ (← *snijeg* ‘snow’);
- e) ‘to act with N’: *vag-ati* ‘to weigh’ (← *vaga* ‘scales’), *bubnj-ati* ‘to drum’ (← *bubanj* ‘drum’), *telefon-irati* ‘to phone’ (← *telefon* ‘phone’), *lak-irati* ‘to varnish, paint’ (← *lak* ‘varnish, lacquer’), *memor-irati* ‘to memorize’ (← *memorija* ‘memory’);
- f) ‘to spend N’: *noć-iti* ‘to spend the night’ (← *noć* ‘night’);
- g) ‘to have N’: *tug-ovati* ‘to mourn’ (← *tuga* ‘sadness’).

4.3.2. Deadjectival verbs

Deadjectival verbs are formed with suffixes in *-ati*, *-jeti*, and *-iti*, often combined with prefixation, and express the following meanings:

- a) ‘to become A’: *star-jeti* ‘to grow old, age’ (← *star* ‘old’), *po-siv-jeti* ‘to turn grey’ (← *siv* ‘grey’);
- b) ‘to make A’: *o-crn-iti* ‘to blacken’ (← *crn* ‘black’), *ravn-ati* ‘to flatten’ (← *ravan* ‘flat’), *ljut-iti* ‘to annoy’ (← *ljut* ‘angry’).

The meaning ‘to be A’ can be expressed by the addition of *se* to causative verbs, e.g., *ljutiti se* ‘to be angry’ (← *ljut-iti* ‘to annoy’).

4.3.3. Deverbal verbs

Verbs formed by prefixation are generally perfective and are derived from imperfective verbs, e.g., *na-praviti* ‘to have done’ (← *praviti* ‘to do’). Prefixation therefore largely overlaps with the perfectivization of imperfective verbs. Perfectivization is also carried out with the help of the suffix *-nuti*, e.g., *vik-ati* (ipf.) ‘to shout’ → *vik-nuti* (pf.), and (rarely) by alternation in roots (sometimes called “internal formation”), e.g., *okopati* (pf.) ‘to dig up’ → *okapati* (ipf.) ‘to hoe’. Some verbs are biaspectual, e.g., *de-mobilizirati* ‘to demobilize’.

Although prefixal verbs are derived only from verbal stems, they represent more than half of all verbs. Prefixes modify the meaning of stems in relation to aspect and aktionsart. Prefixes in perfective verbs mark the beginning (*na-gorjeti* ‘to (begin to) burn’), the completion (*iz-gorjeti* ‘to (completely) burn, burn out’), or the extent of the action (*is-spavati se* ‘to sleep long enough, sleep in’, *pre-soliti* ‘to oversalt’), different temporal delimitation (*pro-sjediti* ‘to spend some time sitting’), instantaneous action (*po-ljubiti* ‘to kiss once’), cumulative actions (*po-strijeljati* ‘to shoot down a lot of people’, *na-kupovati* ‘to buy a lot of sth.’), directional and locative delimitation (*ot-plivati* ‘to swim to’, *is-plivati* ‘to swim out’, *pre-plivati* ‘to swim through’, *o-plivati* ‘to swim around’, *do-nijeti* ‘to bring’, *od-nijeti* ‘to carry away’, *pre-nijeti* ‘to take from one place to another’ (all from *nositi* ‘to carry’)).

Distributive and cumulative verbs are derived by prefixation of already prefixed verbs: *po-zatvarati* ‘to close one by one’ (← *za-tvarati* ‘to close’), *iz-opijati* ‘to get completely drunk’ (← *o-pijati* ‘to get drunk’). Stems of prefixal verbs may be bound, e.g., *-četi*: *po-četi* ‘to begin’. Derivatives may obtain more or less metaphorical or euphemistic meanings, e.g., *po-baciti* ‘to have a miscarriage’ (← *baciti* ‘to throw’).

Suffixes are used to form imperfective verbs from perfective verbs: *zapovjed-iti* (pf.) ‘to order’ → *zapovijed-ati* (ipf.) ‘to be in command’, *kazn-iti* (pf.) → *kažnj-avati* (ipf.) ‘to punish’, *doves-ti* (pf.) (present stem *doved-*) → *dovod-iti* (ipf.) ‘to bring’, *prepis-ati* (pf.) → *prepis-ivati* (ipf.) ‘to copy’. Imperfective verbs may be the base for the further derivation of iterative verbs (also ipf.), e.g., *iskak-ati* ‘to jump out’ → *iskak-ivati* ‘to jump repeatedly out’, *čast-iti* ‘to regale, pay for sb.’ → *čašč-ivati* ‘to often, regularly regale, pay for sb.’.

Some verbs express the development of an action in small steps (“diminutive verbs”), *tuž-akati* ‘to tell tales against’ (← *tužiti* ‘to denunciate’), *lup-karati* ‘to give repeated small blows’ (← *lupati* ‘to throb’), *čup-kati* ‘to pluck’ (← *čupati* ‘to tousle’).

The postfix *se* conveys reflexive meaning or serves the formation of intransitive counterparts of transitive verbs, e.g., *povećati se* ‘to become larger, increase’ (← *povećati* ‘to enlarge’).

4.4. Adverbial derivation

Adverbs can be derived by prefixation, e.g., *ne-rado* ‘unwillingly’ (← *rado* ‘willingly’), *ne-gdje* ‘somewhere’ (← *gdje* ‘where’), *i-gdje* ‘anywhere’ (← *gdje* ‘where’), *pre-kasno* ‘too late’ (← *kasno* ‘late’), bound adverbial stems *do-vde* ‘up to here’, *do-kle* ‘how far’. Pronominal (*i-kako* ‘anyhow’) and prepositional stems (*s-kroz* ‘totally’ ← *kroz* ‘through’) are rare.

Adverbs can also be formed by juxtaposition of prepositions + nouns in the instrumental case (*za redom* → *zaredom* ‘in a row’, *sa svim* ‘with all’ → *sasvim* ‘completely’).

Productive adverbial suffixes are *-ce*, *-ice*, *-ke*. The stems can be nominal: *primjer-ice* ‘for example’ (← *primjer* ‘example’), *jutr-os* ‘this morning’ (← *jutro* ‘morning’); adjectival: *pojedin-ce* ‘apart’ (← *pojedin* ‘single’); verbal: *šut-ke* ‘silently’ (← *šutiti* ‘to be silent’); adverbial: *neprestan-ce* ‘constantly’ (← *neprestan* ‘constant’), *strmoglav-ce* ‘steeply’ (← *strmoglav* ‘headlong’), *natraš-ke* ‘backwards’ (← *natrag* ‘back’); numeral: *jedn-oć* ‘once’ (← *jedan* ‘one’).

Adverbs can go back to the instrumental case of nouns, e.g., *slijedom* ‘subsequently’ (← *slijed* ‘sequence’), *nesrećom* ‘unfortunately’ (← *nesreća* ‘misfortune’), cf. section 5.

In prefix-suffix formations (circumfixation) the stems may be nominal: *na-leđ-ice* ‘on one’s back’ (← *leđa* ‘back’), *bez-obzir-ce* ‘inconsiderately; lit. without-consideration-SUFF’ (← *obzir* ‘consideration’), *bes-prestan-ce* ‘unceasingly; lit. without-cessation-SUFF’ (← *prestanak* ‘cessation’); adjectival: *po-sam-ce* ‘individually’ (← *sam* ‘alone’).

5. Conversion

Nouns, adjectives and adverbs can be formed by conversion, whereas verbs cannot. There are isolated cases of prepositions being the result of conversion, e.g., *pomoću* ‘by means of’, which is the instrumental of the noun *pomoć* ‘help’. Some prepositions are formed by merger of two prepositions: *ispred* ‘in front of’ (← *iz pred* lit. ‘from before’), and prepositions and nouns: *namjesto* ‘in place of’ (← *na mjesto* lit. ‘on place’). Isolated examples of conversion can also be found among interjections, particles and conjunctions.

5.1. Nominal conversion

Conversion from adjectives gives rise to many toponyms and names of countries, such as *Hrvatska* ‘Croatia’ (← *hrvatska zemlja* ‘Croatian land’), and, analogically, *Njemačka* ‘Germany’, *Engleska* ‘England’. Surnames with the adjective suffix *-ski* (like *Đalski*) also belong here. Individual common nouns as, e.g., *mlada* ‘bride’ (← *mlada* ‘young’ f.) and *velečasni* ‘reverend’ (← *velečasni* ‘high(ly) estimated’) are also converted from adjectives. The nouns *zeleni* ‘the Greens’, *umrli* ‘the deceased’, and *rođeni* ‘newborns’ are pluralia tantum from adjectival plural forms. The nouns *umrli* and *rođeni* are converted from a specific class of adjectives which in grammars are described as verbal forms, i.e. as active and passive verbal adjectives (corresponding to past participles). Nouns converted from adjectives are inflected according to the declension of adjectives.

5.2. Adjectival conversion

Adjectives such as *leteći* ‘flying’, e.g., in *leteći tanjur* ‘flying saucer’, *sljedeći* ‘following’ in *sljedeći čovjek* ‘the following person’, and *prjeteći* ‘threatening’ in *prjeteće pismo*

‘threatening letter’, are considered to be converted from verbal adverbs (gerunds): *leteći*, *slijedeći*, *prijeteći*. Such adjectives can individually be common and frequent, but their formation and use are restricted, for example, **radeći čovjek* ‘working man’ is not possible, only *čovjek koji radi* ‘a man who works’.

5.3. Adverbial conversion

Adverbs are often formed by conversion from neuter forms of adjectives (*nedavno* ‘recently’, *potiho* ‘quietly’, *brže* ‘quickly’), including comparatives and superlatives (*bolje* ‘better’, *najbolje* ‘best’, *najbrže* ‘most quickly’). The conversion of the nominal instrumental into adverbs has already been mentioned (cf. section 4.4), e.g., *podrijetlom* ‘originally’ (← *podrijetlo* ‘origin’).

There are some examples with both separate and compound spelling (*na primjer* – *naprimjer* ‘for example’). Some Croatian normativists give priority to writing them separately, and others to juxtaposing them. In most cases, however, the different spelling signalizes differences in meaning, e.g., *sasvim zadovoljan* ‘completely satisfied’ – *sa svim zadovoljan* ‘satisfied with everything’.

6. Minor processes of word-formation

Backformation is typical of hypocoristic personal names and other hypocoristics like *djeva* ‘young girl’ (← *djevica* ‘id.’), *gospa* ‘lady’ (← *gospođa* ‘id.’), *lasta* ‘swallow’ (← *lastavica* ‘id.’); in works on Croatian word-formation, they usually are explained as derivatives in *-a* with a truncated stem.

Reduplication is rare in Croatian word-formation. It occurs mostly in the formation of adjectives and adverbs with an intensifying function (for other cases see section 3.4). The reduplicated (or partially reduplicated) elements are usually followed by a suffix: *cijel cijelcat* ‘completely; lit. complete complete-SUFF’, *bijel bjelcat* ‘completely white’, *crn crncat* ‘completely black’, *jedva jedvice* ‘barely’, *vjekovječan* ‘eternal’, *dano-dnevni* ‘day in day out’ (← *dan* ‘day’ and *dnevni* ‘daily’ adj.), *dandanas* ‘nowadays’ (← *dan* ‘day’ and *danas* ‘today’). A special case are verbal semi-compounds with two verbal components (e.g., imperative, temporal forms) with opposite (or similar) meanings. However, they do not belong to the standard register: *povuci-potegni* ‘push and pull’, *htio-ne htio* ‘whether one wants to or not; lit. (he) wanted, didn’t want’, *rekla-kazala* ‘gossip, chit-chat; lit. she said, she told’.

Blending is rare. Blends appear mostly in newspapers or internet sites, in the advertising language and in names of products or companies: *Zaba* (company name) ← *Zagrebačka banka* ‘Zagreb bank’, *Krašćice* (product name of cakes) ← *Kraš* (company name) + *krasotice* ‘beauties’, *klinceza* ‘little girl’ ← *klinka* ‘little girl’ + *princeza* ‘princess’, *rakijadler* ‘mix of brandy and shandy (radler)’ ← *rakija* ‘brandy’ + *radler* ‘mix of beer and lemonade’ (Germ.), *maspok* ‘Croatian political movement in the beginning of the 1970s’ ← *masovni pokret* ‘mass movement’.

Clipping occurs in the form of omitted morphemes, e.g., *svilokos-Ø* ‘silken-haired’ (← *svilena kosa* ‘silken hair’), *sedmostruk* ‘sevenfold’ (← *sedmero* (collective num.)

struk), *inopartner* ‘foreign partner’ (← *inozemni partner*). The clipping of roots, e.g., *lis-ica* → *lija* ‘fox’ is rare.

By means of the clipping of stems + suffixation, stylistically marked words are formed: *Dalmoš* (← *Dalmatinac*) ‘a Dalmatian’, *studoš* (← *student*) ‘student’, *faks* (← *fakultet*) ‘faculty’. Sometimes abbreviations may be followed by a suffix (*iks-ica* (also *X-ica*) ← *iks* ← *identifikacijska kartica studenta* ‘student’s identity card’ + *-ica*).

Examples of word-creation are also rare, cf. in Zagreb youth slang *bed-ara* ‘boredom’, probably derived from English *bad*, or the permutation of syllables in *vopi* (← *pivo* ‘beer’). Occasionalisms in poetry or in the language of contemporary Croatian newspapers mostly follow existing word-formation models, e.g., *pro-njež-i-ti* ‘to make gentle’ (← *nježan* ‘gentle, sensitive’), *od-nebes-i-ti se* (← *nebo/nebesa* ‘heaven(s)’) ‘to fall from heaven’ (Anka Žagar); *manjin-ci* (pl.) ‘representatives of national minorities in Croatian parliament’ (← *manjin-a* ‘minority’ + suffix *-ci*, pl. of *-ac*), *vrtić-arci* ‘children in kindergarten’ (← *vrtić* ‘kindergarten’ + *-arci*, pl. of *-arac*, an unproductive suffix), *de-tuđman-izacija* ‘detudjmanization; political ideology against Croatian national and state autonomy’ (← *Tuđman*, the founder and first president (1990–1999) of the Republic of Croatia), *bankariti* (from an advertising of a bank) ‘to bank’ (← *banka* ‘bank’ + suffix *-ariti*), *lajkati* ‘to like’ (← *lajk* (< Engl. *like*) + verbal suffix *-ati*).

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