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## Coordination throughout the history of Croatian orthography\*

In contemporary linguistics, subordination and coordination are most commonly used in syntax, with co-ordination referring to independent clauses, and subordination to the dependent ones. In this paper, we approach the phenomenon of coordination from the syntagm point of view with the aim of describing the relation between the syntagm and the word. For the purpose of this analysis, “word” is understood as an orthographic unit (a language unit written between two blank spaces) which is, in addition, in the sense of derivational morphology, a compound with at least two stems. In this respect, the most challenging are the derivation of semi-compounds, in the traditional sense, and the understanding of the function of a dash. The dash conveys two senses: formal (orthographic and derivational) and the semantico-syntactic. The formal function refers to the connection of at least two constituents (stems), while the semantico-syntactic function relates, on one hand, to the subordination (connecting parts of the word, i.e., one stem appears as superior to others; also called *single-term compound*), and on the other hand, to the coordination (connecting two or more words, i.e., the stems of the equal level; *multi-term compounds*). A similar problem occurs with respect to the compounds which are formally of the same status as the syntagm or the word phrase from which they have been derived. In this paper, the mentioned derivational-morphological problem is explored from the perspective of orthographic diachrony: we analyse the approaches in Croatian orthography books that mirror the concept of coordination at the syntagm and word level (i.e., a compound consisting of at least two stems). Our analysis includes all parts of speech, with the goal of listing, describing and scientifically explaining all the questionable cases.

**Key words:** co-ordination, derivation, syntagma, word, Croatian orthography books

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## 1. Introduction

Coordination in Croatian has mostly been studied at the syntactic level, e.g., Pranjković (1979; 1981; 1984), Kordić (2008), Palašić (2018), Badurina (2018). There are several papers that deal with the relationship between syntagms and words: Marković (2010), Ramadanović (2012), Kovačević and Ramadanović (2013). The relationship between clauses in a coordinated sentence is that of **linking**, while the relationship between clauses in a complex sentence is that of **inclusion** (GHJ 2005: 321) and these are the relationships that will be analysed in this paper at the level of word formation. The general attitude is that derivatives formed by coordination result in multiword units, while those that are formed by subordination result in compounds. We will analyse how these relations are distributed in Croatian orthography books.

With this analysis we aim to contribute to the limited sources on derivatives formed by coordination in the Croatian language. Since in Croatian, almost up to the 21<sup>st</sup> century, only the orthography books were attempting to solve the problem of coordination at the syntagm and word level, it is interesting to explore related methodological issues. Nevertheless, when the orthographic rules are considered to be complex, users tend to find their own ways to achieve the communication goals. In this sense, our analysis can help form the orthographic rules which are aligned with a more systematic and language-based approach. It also allows for a more universal application of rules to future examples which, as expected with lexical units, appear on a daily basis. Furthermore, rethinking the orthographic approaches to coordination at the syntagm and word level can contribute to insights into coordination as linguistic phenomenon.

Therefore, to begin we describe the corpus, encompassing the examples (both syntagms and words) found in the Croatian orthography books that describe the contemporary Croatian orthographic norm. Since the orthographic solutions tend to be explained through the linguistic analysis, we provide the necessary insights into coordination at the level of syntagm and word, taking into consideration approaches employed in morphology, derivatology, syntax and semantics. To complete the overview of the approaches to the coordinate compounds, we finish by consulting Croatian language handbooks. In the next three sections we discuss the presentation of the nominal coordinate compounds, adjectival coordinate compounds as well as other kinds of words in order to point out the insufficient interpretations in Croatian orthography books. In the last chapter we bring together our findings and present our conclusions.

## 2. Corpus

The first group of sources included in our study encompasses all Croatian orthography books that describe the contemporary Croatian orthographic norm. M.

Kušar (1889) was the first to deal with the notion of coordinated structures at the syntagm and word level in his study on orthography. This issue was dealt with in a separate chapter in I. Broz's (1892) orthography book, which appeared at the beginning of the contemporary Croatian orthographic norm and has since appeared in every Croatian orthography book. The second group of orthography books included in our study encompasses all the handbooks, but not necessarily all their editions. We focused on those editions that marked a social turning point (with respect to the historical events) or a turning point in the orthographic norm. Questionable cases (i.e., those in which the entry in the orthographic handbook does not follow the rule provided in the chapter in the same book) were compared with examples from the secondary corpus. Along with questionable cases, we also present evidence from language handbooks and examples of use from web corpora (we also give the number of examples found in the *Croatian Language Repository* and the corpus of internet texts *hrWaC*).

### 3. Insights into the problem, its definition and delimitation

Any orthographic solution is immanently preceded by the clarification of the linguistic status of the unit in question. In case of the linguistic analysis of the relationship of coordination at the syntagm and word level it is necessary to begin from a derivatological analysis, which in its nature is actually a syntactico-semantic analysis. Morphological (paradigmatic) features of the syntagm and the word need to be included in this analysis and orthography books frequently choose this as the decisive criterion for determining the way such structures should be written. Compounding (in the wider sense of the word) is the least researched segment of Croatian derivatology due to the fact that it is significantly less represented than the other types of word formation (Babić 2002: 366).

Word formation procedures (*compounding* and derivation) need to be distinguished from the types of word formation because the concept of compounding can also be found among the types of word formation (Ramadanović 2012; Horvat and Ramadanović 2012: 133–161). When we speak about compounds in this paper we mean *compounds in the wider sense*, i.e., the word formation procedure of compounding and therefore we focus on all categories of compounds.

Different views on the classification of compounds indicate that there are two, that is, three criteria for their classification: the formal and the syntactico-semantic criteria. However, they are frequently joined in classifications and definitions (compare the definition of the compound in: Barić 1980: 15). According to the formal criterion, we distinguish between derived words motivated by one base (derivatives) and those that have several (two or more) bases (compounds). According to Bauer's (1983: 30–31) semantic analysis, compounds can be endocentric (their meaning is

derived from the constituent parts of the compound, e.g., *basnopisac* → writer of fable(s); *brodovlasnik* → owner of ship(s)), exocentric (their meaning is wider than that of the constituent parts of the compound, e.g., *kolovoz* > ‘the eighth month in the calendar year’), appositional (*lovac-sakupljač*) and copulative (*kupoprodaja*, *sjeveroistok/sjevero-istok*, *crveno-bijelo-plav*) (for more on this see: Kapetanić (2007)). Stevanović (1964: 387–591) introduces a division of compounds into copulative and determinative on the basis of the syntactic relationship between the constituents of the compound.

The syntactico-semantic criterion implies two types of compounds: 1) coordinate compounds (the constituents have equal status: *crno-crven*, *slovensko-hrvatski*), and 2) subordinate compounds (the constituents do not have equal status: *biser-grana*, *brodogradnja*, *književnoteorijski*). For more on the issue of writing the subordinate compounds and linguistic units that enter into a coordinated relationship (comp. the first example for both types of compounds) the same way, see: Kovačević and Ramadanović (2013: 285–287). Word formation which involves subordination is more frequent than the one involving coordination in all Slavic languages (Marković 2010: 72). In subordinate compounds the first constituent (the leftmost) is, in most cases, semantically and syntactically subordinate to the second one (the rightmost), and as a result, the second constituent is the head (Marković 2010: 72), e.g., *parobrod* → boat that runs on steam (a type of a boat); *taksi-vozač* → taxi driver (a type of a driver).

In this paper we analyse *compounds in the wider sense* since the concept of coordination appears throughout this category. Coordination presumes at least two syntactically and semantically equal constituents whose meaning is the sum of the meanings of the constituent parts, e.g., *češko-poljski odnosi* (‘relations between the Czech Republic and Poland’). Such compounds are called coordinative, coordinate, copulative, parallel, correlative, two-word/multiword compounds, and in Indo-Europeanistics they are also referred to as *dvandva* (after *dvandva* from Sanskrit = ‘couple, compound’) (Marković 2010: 73). Their frequency is significantly lower than that of subordinate compounds, and the most common types are the adjectival and the adverbial ones. In other words, the main difference between coordinate and subordinate compounds lies in the relationship between the constituent parts, i.e., whether they are in a relationship where they are equal (coordinate compounds; their meaning is derived from the compound most frequently with the help of: *i*, *s(a)*, *između*) or in one where one constituent is subordinate to another (subordinate compounds). Subordinate compounds are most frequently formed from two bases, while coordinate ones can involve a greater number of bases (the same is true at the syntactic level: coordinated sentences have an open structure and the number of clauses is not limited (Pranjeković 1980/81: 160, 162)).

## 4. Coordination in Croatian language handbooks

Older descriptions of coordinate compounds in Croatian language handbooks predominantly adopt the syntactico-semantic approach, and the discussion mostly focuses on copulativeness and determinateness as the procedures that govern the meaning of the compound: Maretić (1931: 334–335), Brabec, Hraste and Živković (1958: 173–175) and Pavešić (1971). Such a syntactico-semantic description of coordinate compounds is rare in contemporary grammar books, but its traces can be found in the approach that mentions *single-term* compounds (e.g., *književnoteorijski*) and *two-term or multi-term* compounds (e.g., *crveno-bijel*), where the authors also discuss the stress, with the first type having one stress and the second two stresses (GHJ 2005: 177). Grammatical descriptions of coordinate compounds have also faced the issue of different approaches to the orthographic notation of such units which can be particularly well seen in *Hrvatska gramatika* (1997: 335–355). In addition to systematically discussing this issue when it comes to adjectives (and one can only attempt, with more or less certainty, to draw conclusions about nominal coordinate structures from the rare examples), it is interesting that for compound adjectives it is stated that the fact that they are written with a hyphen indicates stress independence and morphological equality of the constituent parts (adjectives). However, due to the orthographically prescribed way of writing the adjective *gluhonijem* (from *gluh* ‘deaf’ and *nijem* ‘mute’), it is listed as an exemption. In a chapter on formation of pure compounds, Babić (2002: 368) emphasizes the copulative meaning of compounds such as: *kupoprodaja*, *primopredaja*, *jugoistok*, etc. When it comes to the formation of adjectives, he describes coordinate compound adjectives as those whose constituent parts are in an *equal* relationship (Babić 2002: 416). From the perspective of contemporary language handbooks, the issue of coordination at the syntagm and word level is interesting only at the orthographic level and it tends to be described with the help of the concept of “single-term” and “two-term/multiterm” compounds (*Hrvatski jezični savjetnik* 1999: 66).

Overall, coordinate compounds are not treated systematically in Croatian language handbooks. If they are treated at all, the focus is on adjectival word formation with the help of coordination which is very productive due to its communicative function as an efficient and succinct way of conveying meaning.

## 5. Coordination in Croatian orthography books: nominal coordinate compounds

In methodological terms, Croatian orthography books describe coordinate compounds according to the word class they belong to. Alongside the syntactico-semantic approach (according to which coordination is distinguished from subordi-

nation), the derivative approach (according to which compounds with two or more bases are distinguished based on whether the result of coordination is a single term (single-term compound) or two terms (i.e., multiple terms)) is also present in orthography books. In Croatian orthography books, multiterm compounds are most frequently written with a hyphen, while single-term compounds are written either with or without a hyphen. This practice of writing different units the same way naturally has not helped better understanding of coordination.

If we conduct a structural analysis of confirmed examples from Croatian orthography books in which the relationship of coordination is implied:

1. adjective + adjective, e.g., *dragoljub*<sup>1</sup> (a type of flower), *Dragoljub*, *Miodrag*, etc.
2. noun + noun, e.g. *jugozapad*<sup>2</sup> (point of the compass between the south and west, both south and west), *jugoistok*, *sjeveroistok*<sup>3</sup> (Boranić 1921, Gavazzi 1921, Boranić 1928, PU 1929 (*severoistočni*), Boranić 1930, CK 1944 (*sjeveroiztok*), Boranić 1951, MH–MS 1960 (PP));<sup>4</sup> BFM 1971, AS 1986, BFM 1996 (PP), BFM 2000, BHM 2008, BM 2010 (PP) and *sjeverozapad* (point of the compass between the north and west, from *sjever* and *zapad*), *dani-noć*, *kupoprodaja*,<sup>5</sup> *soihljebnik* (Broz 1892 (PP), MH – MS 1960, AS 1986) / *solihljebnik* (AS 1986), *bogočovjek*,<sup>6</sup> *primopredaja* (→ accepting and giving), *Cvetković-Maček* (treaty), *Euroazija*,<sup>7</sup> *klorovodik*, *kloraceton*, *šah-mat* (MH – MS 1960, BFM 1971, BFM 1996, BFM 2000, AS 2001, BMM 2007, BHM 2008, BM 2010, HPIHJJ 2013), *šah-šeh* (BFM 1971, BHM 2008, BM 2010); *grad-država* / *grad država*, etc.

it can be seen that in all cases we are dealing with nominal compounds which most frequently involve two bases which in morphological terms always belong to the same class of words: adjective + adjective and noun + noun. These compounds

<sup>1</sup> Maretić states that *ljub* is the same as *mio* (1931: 334–335).

<sup>2</sup> All the analysed orthography books, with the exception of Kušar's (1889), list this compound as a closed compound. In Kušar's orthography book it is written with a hyphen: *jugo-zapad*. The compound *sjevero-zapad* is not noted in this orthography book.

<sup>3</sup> Only in Kušar's orthography book (1889: 73) it is stated that this should be written with a hyphen, because in his rules he states that "a hyphen links ... words that were created mostly within the literary language following the role-models from foreign languages such as: names of winds, e.g., *sjevero-istok*, *jugo-zapad* etc., names of colours, e.g., *crveno-modar*, *jasno-žut* etc."

<sup>4</sup> The marking (PP) indicates that confirmation can be found in orthographic rules. Otherwise, the listed examples can be found in orthographic dictionaries.

<sup>5</sup> The first constituent of the compound (*kupo-*) could also be considered to be a Croatian prefixoid.

<sup>6</sup> From *Bog* and *čovjek*. If the transformation is → a man like a God, then we are dealing with subordination.

440 <sup>7</sup> From *Europa* and *Azija*.



almost always look like two words (noun + noun or adjective + adjective) linked with the help of the conjunct *i*. Still, our corpus has revealed that they can be written in different ways in Croatian orthography books. In other words, regardless of the fact that these compounds are structurally (morphosyntactically) the same, i.e., that their constituents are in a copulative or coordinative relationship, they are written differently (they are different at the level of expression), and, as a result, from the perspective of word formation they are classified as belonging to different word formation types: 1) agreement (with the infix *-o-*: e.g., *bogočovjek*, *sjeverozapad*, *kupoprodaja*, *jugojužistik* (< *jugo-* + *-južistik*)), 2) merging (with the conjunct *i* – in which the semantics are mapped onto the expression: *daninoc*,<sup>8</sup> *soihljebnik*<sup>9</sup>), and 3) linking with the help of an infix in two ways (two bases are linked with the help of a hyphen which then has the meaning of the conjunct *i*: *jug-južistik* and two bases are linked with both a hyphen and an infix: *jugo-južistik*). In this sense it is interesting that the coordinative compound<sup>10</sup> with the meaning of ‘point of the compass between the south and south-east’ has been defined with the help of three principles in Croatian orthography books: 1) as a compound (*jugojužistik* AS 1986, AS 2001, BM 2010) and two ways that involve a hyphen, 2) infix *-o-* and a hyphen (*jugo-južistik* = CK (PP) 1944, MH – MS 1960, BFM 1971, BFM 1996, BFM 2000), and 3) with only a hyphen (*jug-južistik* = BMM 2007, HPIHJ 2013) because each orthography book interprets it using different rules.<sup>11</sup> Justification can be found for each of these ways of writing, but it is important to be aware of their meaning (one-term and multiterm) in addition to keeping in mind the relationship of coordination and subordination. An interesting explanation can be found in Cibra and Klaić’s orthography book (1944: 52): “complex compound (three member) names of points of the compass are written with a hyphen”, e.g., *jugo-južistik*, *zapad-sjeverozapad*, and “the same holds true for corresponding adjectives”. In the BM orthography book (2010) this word is noted as a compound in two places: *jugojužistik* (orthographic dictionary), *jugojužistik* (rules on words beginning with a small letter, while, on the

<sup>8</sup> This is a flower, and this way of writing has been noted in almost all the orthography books. It is standardised as *dan i noć* in Boranić’s (1934), and as *dan-i-noć* in Kušar’s orthography book (1889).

<sup>9</sup> 1892: Broz (PP).

<sup>10</sup> They are coordinative at the level of word formation, but in fact have a new meaning, i.e., they are single-term compounds. More on this later in the paper.

<sup>11</sup> Therefore, the rules for writing such compounds in Croatian orthography books have most frequently depended on individual rules. For example, in the BFM orthography book (1996: 66–67) the compound *sjeveroistik* is found in the group of examples for which the general lexicological rule that “words whose one or both constituent parts are not used as independent words” (1996: 66) are written as closed compounds is applied and in the group of examples in which an individual rule related to writing nouns is superordinate and relies on a phonological principle: “many nouns that have only one stress are written as a closed compound” (1996: 66–67). It is important to note that only *sjever-* and *jug-* can function as the first constituent element of these compounds, e.g., *sjeverozapad* or *južistik*, while others have not been attested, e.g., *\*zapadojug*.



other hand, under the entry for *zapad* in the orthographic dictionary, the following can be found: *zapad-jugozapad*.<sup>12</sup> It is clear that these examples involve coordination, but we have to ask ourselves whether we are talking about terms with a single meaning or terms with more meanings. If we are talking about a term with a single meaning then the infix *-o-* should be used, but with the exception of the example *jugojugozapad*, no others have been attested (e.g., *zapad- + -o- + -jugozapad* or *istok- + -o- + -jugoistok*). When it comes to professional terminology, the option without the infix *-o-* has become the dominant one and in the majority of orthography books these nouns are written only with a hyphen, e.g., *sjever-sjeverozapad*, *jug-jugoistok*, *zapad-sjeverozapad* and *istok-sjeveroistok*.

Subordinate appositive syntagms and/or compounds are also written inconsistently in Croatian orthography books, and this is the result of the fact that they fall under different individual orthographic rules.<sup>13</sup> Let us take a look at several words (and/or syntagms): *kasica-prasica* / *kasica prasica*, *žena-heroj* / *žena heroj*, *grad-država* / *grad država*. *Kasica-prasica* / *kasica prasica*, which is an example of a subordinate compound/syntagm, appears only in two orthography books: with a hyphen (HPIHJJ 2013) and as a syntagm (BMM 2007). This example demonstrates how the application of different orthographic rules results in different solutions. According to the BMM (2007: 150) orthography book, groups “of nouns where one is an attribute to the other (usually second to the first), and both of which undergo declension” are written as separate words, e.g., *automobil bomba*, *bombaš samoubojica*, *grad heroj*, *žena akademik*. On the other hand, “two-term and multiterm nominal compounds which have two or more constituents and are based on the repetition of the same or juxtaposition of opposing constituents” are written with a hyphen, e.g., *bugi-vugi* (dance), *dan-noć* (game), *kasica-prasica*, etc. The IHJJ-a (2013: 48) orthography book contains a rule that states that “two nouns that denote a single concept, have two stresses and both undergo declension” are written as two words, e.g., *grad država*, *kamen temeljac*, *kasica prasica*, *pismo bomba*. We did not find the same examples in other orthography books, but we will try to deduce the superordinate rule with the help of analogous examples. In the BFM (1971: 85) orthography book there is a rule which deals with the relationship of subordination between the constituent parts (“...the first noun has a wider and the second a narrower meaning...”) and takes into account whether the first noun can undergo declension, and as a result “nominal groups such as *pilot lovac*, *čovjek žaba*, *žena radnica*, *kamen temeljac*” are not considered to be semi-compounds. This is also the case with all the

<sup>12</sup> The examples noted here are inconsistent. The first constituent in the compound *jugojugozapad* is written with the infix *-o-*, and in the second example (*zapad-jugozapad*) there is no infix *-o-*.

<sup>13</sup> Our research focuses on coordinate compounds, but there are borderline cases which make it impossible not to say something about subordinate compounds.

editions of the BFM<sup>14</sup> and with the BM (2010: 58) orthography book. The AS (2001: 105) orthography book also does not contain these examples, but if we use analogy, they could be treated as being subject to the rule which states that examples such as *žena-heroj* “are a specific kind of subordinate compounds<sup>15</sup> separated by a hyphen” in which “both constituents undergo declension” (*žene-heroja*): *ljudi-žabe*, *pilot-lovac*, *čovjek-genij*, etc. It is noticeable that Anić and Silić’s orthography book consistently treats the semantic principle of single-term and two-term (multiterm) as a superordinate rule because a “hyphen” is a “punctuation mark that indicates that the elements separated by it create a close-knit unit and represent a unit at the level of words” (1987: 64). In this orthography book only adjectives such as *rudarsko-naftni* are described as examples of coordination, i.e., treated as coordinate compounds. According to it (1987: 87; 2001: 105), even examples such as *ljudi-žabe*, *žena-heroj* and *pilot-lovac* are written with a hyphen regardless of the fact that both the constituents of the compound can undergo declension, and “compounds of the type *zemlja-zrak* (comp. *raketa*<sup>16</sup> *zemlja-zrak*) in which none of the constituents can undergo declension” are written the same way because such “compounds can perform (as a whole) the role of the first part of subordinate compounds of the type *vikend-kuća*: *zemlja-zrak-raketa*”.

We continue with the example *grad-država* / *grad država* which, in orthography books, is most frequently interpreted with the help of coordination and transformation → *both a city and a state*. Its transformation can imply the meaning of ‘both a city and a state’, but, in fact, on the basis of coordination, a new term (single term), which is different from both ‘city’ and ‘state’, is obtained. According to the BMM (2007: 148) orthography book, this example is written with a hyphen because it falls under the rule which states that “two-term nominal compounds, that is, compounds with conjunctive meaning” (*grad-država* < city and state) are written with a hyphen. According to the HPIHJ (2013: 48) orthography book this example is written as an open compound (*grad država*) because it falls under the rule which states that “two nouns which denote one term, have two stresses and both of which can undergo declension” are written as two words. This compound/syntagm is not listed in other orthography books. If we apply what we know about the rules, we can say with certainty that in Anić and Silić’s orthography book this example would be written with a hyphen, because, as we have demonstrated, the only criterion for formation of words in this orthography book is that the result is a one-term unit. If we look at the BFM orthography book, this example will fall under the following rule: “When the constituent parts of a binomial expression are linked as two nouns which have

<sup>14</sup> For example, BFM (1996: 70).

<sup>15</sup> According to this orthography book (2001: 104) subordinate compounds are single terms, and constituents participating in a coordinate compound are two or multiple terms.

<sup>16</sup> Engl. ‘missile’.

the same level of meaning and each of which retains its stress, a nominal semi-compound is created, e.g., *biser-grana* (instead of *biserna grana*). In semi-compounds only the last constituent undergoes declension<sup>17</sup> (1996: 68). The following examples are given: *ivan-cvijet*, *minus-vodič*, *rak-rana*, *rok-glazba*, etc.

This example is also found in dictionaries under the entry for *grad* (in syntagms), written with a hyphen, as *grad-država* (HJP, VRH) with the following meaning: *hist.* ‘a city enclosed by walls with an independent government’. The HJR contains four examples written with a hyphen (*grad-država*). Particularly interesting is an example in which the order of constituents has been reversed: *Antičku državu-grad zamijenio je renesansni grad-država, pa je ta socijalna transformacija djelovala... B. Donat (1972: Inner manuscript)* because it can be observed that *država-grad* has been written with a hyphen, and the first word undergoes declension. The hrWaC corpus contains 109 examples of use of *grad-država*. Twenty-four examples confirm that it is written with a hyphen even when the first constituent undergoes declension (*gradu-državi*). Furthermore, there are 473 examples of *grad država* as a syntagm, and in the case of 119 examples we are dealing with coordination (in the remaining examples the words under scrutiny have been used in their basic sense). In 84 examples the first word of the coordinate syntagm undergoes declension, in 5 it does not, and in the case of 30 examples we are dealing with nominative (28 examples), that is, accusative (2 examples) and the prerequisites for declension are not met. The analysis of the corpora has revealed that there is a roughly equal number of examples in which the first constituent of the syntagm undergoes declension and those in which it does not, and the only observable pattern is that examples where the first constituent does not undergo declension are more frequently written with a hyphen.

Examples such as the following ones also represent a bone of contention in Croatian orthography books: *radiotelevizija/radio-televizija*, *psihofizički/psiho-fizički* and *biobibliografija/bio-bibliografija*. The BMM (2007: 148) orthography book is the first to introduce the rule that “two-term nominal compounds in which the first constituent has the form of a prefixoid”, e.g., *audio-videooprema*, *Austro-Ugarska*, *auto-motodruštvo*, *eko-etnoturizam*, *radio-televizija* and “two-term adjectival compounds in which the first constituent has the form of a prefixoid, that is, those that were formed from two-term nominal compounds” (2008: 156), e.g., *alfa-numerički prikaz* (alphabetical and numerical), *Austro-ugarska* nagodba (Austrian and Hungarian, after Austro-Ugarska), *bio-bibliografski* (after bio-bibliografija), *psiho-fizičko*

<sup>17</sup> It is explicitly stated that in semi-compounds only the rightmost constituent undergoes declension, and the rule that follows states the following: “Compounds are written as semi-compounds and both their parts undergo declension when we wish to stress their unity for stylistic or semantic reasons, as is the case in *ključ-razlikovnik* (G sg. *ključa-razlikovnika*), *grješnik-pisac* (G sg. *grješnika-pisca*), *igra-predstava* (G sg. *igre-predstave*), *junak-djevojka*, *brat-nebrat*, *pismo-bomba*, *riječ-termin*, *brod-dizalica*.”

*zdravlje* (psychological and physical health), *radio-televizijski prijenos* (radio and television broadcasting, after *radio-televizija*) are written with a hyphen. The compound *biobibliografija* can be found in: AS (1986); AS (2001); HPIHJJ (2013), and the compound *bio-bibliografija* in: MH–MS (1960); BFM (1971); BFM (1996); BFM (2000); BMM (2007) (PP); BHM (2008); BM (2010). The hrWaC corpus contains 23 examples of *bio-bibliografija*, and 28 examples of *biobibliografija*. The majority of orthography books list the following alongside this word: *biografija* and *bibliografija*. Therefore, if we look at the transformations, we are dealing with coordination. So, what does the orthographic solution that states that prefixoids<sup>18</sup> are separated by a hyphen when they enter into a relationship of coordination bring us and how can we know with certainty which of them are semantically one term and which two or more terms? The HG (1997: 351) states that some “bound lexical morphemes” have been adopted from Greek-Latin compounds, and some “probably by analogy to the listed ones, start to appear as reduced adjectival bases”, e.g. *ekosistem* < ecological system. Furthermore, it states that “bound lexical morphemes in the first part of such compounds serve as attributive determinants of the second part”, and “their meanings can be described by major adjectival transformations which ‘relate to i’”. In accordance with this, it is logical to ask the following question – can this transformation take the following form: *biografska bibliografija*? Does the compound *antropobiologija*, which has been attested only in this form in Croatian orthography books (CK 1944; MH–MS 1960; AS 1986; BFM 1996 (PP)), then mean *anthropology* and *biology* or *anthropological biology*? Both of these compounds, regardless of how we write them, consist of two prefixoids and one suffixoid.<sup>19</sup> Furthermore, the compound *lingvistika* has only been attested as a compound (in the wider sense of the word) in the following orthography books: AS (1987); AS (2001); BMM (2007); HPIHJJ (2013). Is its transformation: *linguistics* and *stylistics* or *linguistic stylistics*? Compounds such as *automotodruštvo*, *ekoetnoturizam*, *enogastrohotel* or *enoekogastrostol*, are different from either of the aforementioned types, because they are formed with the help of two or three prefixoids and a base. If we conclude that this is coordination, then all the prefixoids would have to be separated by hyphens (except the last one, i.e., the rightmost one), e.g., *auto-motodruštvo* or *eno-eko-gastrostol*. In this way prefixoid compounds with two hyphens are obtained and this has not

<sup>18</sup> In Croatian literature the following terms can also be found: bound lexical morpheme, bound lexical base, and prefixoid and suffixoid. See, e.g., Mihaljević and Ramadanović (2006: 202); Ramadanović (2012: 63–89), Mikić Čolić (2021: 185 – 189).

<sup>19</sup> Prefixoids are “lexical bound bases which are added in front of the base or word in word formation, which create a new compound” while suffixoids are “lexical bound bases which are added after the base or word in word formation, which create a new compound”. See: Mihaljević and Ramadanović (2006: 203). Furthermore, *-grafija* is usually classified as a suffixoid, but it can also be a (free) base. Hence, *biobibliografija* would be a compound consisting of two prefixoids and one suffixoid or of two prefixoids and one base.

been attested in any of the orthography books. Still, in order to attempt to solve this only seemingly simple problem, we need to start from the beginning and note that, for example, compounds *radiotelevizija* and *psihofizički* are written as closed compounds in BFM (1996) and BM (2010), while in BMM (2007) it is prescribed that they should be written as hyphenated compounds *psiho-fizički*, *radio-televizija*, and HPIHJJ prescribes *psihofizički* and *radio-televizija*.<sup>20</sup> In Silić and Pranjković's grammar book (2005: 155–159) these examples are not found, but all the prefixoids are written as a part of the compound, regardless of how many there are: *agrobiologija*, *elektroagrikultura*, *etnomuzikologija*, *fitopatologija*, *kozmiobiologija*, *mikrotoponomastika*, *morfonologija*, *radiobiologija*, *spektrofonokardiografija*, *stereofotogrametrija*, *zoopaleontologija*, etc. *Hrvatska gramatika* (1997: 353) also contains such compounds (with bound lexical morphemes): *motovelodrom*, *pedopsihologija*, *pneumoencefalografija*, *stenodaktilograf*, *telefotografija*, etc., and Babić (2002: 369–370) also gives such examples. However, this pattern is not unknown in the Croatian languages since we have, for example, a traditional coordinate compound written with a hyphen: *Austro-Ugarska*. Therefore, it is extremely hard to conclude from the listed examples when we are dealing with coordination in word formation and when we are not. For example, let us take the compound *motovelodrom*<sup>21</sup> which appears in the HG. It could be transformed either as → motodrome and velodrome (> *mo-to-velodrom*) or as motorist velodrome, 'which relates to motion and motoristics' (> *motovelodrom*). We have demonstrated that it is difficult to know with any degree of certainty which syntactico-semantic relationship should be applied when analysing such compounds, i.e., coordination or subordination. We should also be aware of the fact that if we opt for (word formation) coordination and decide to always write such compounds with a hyphen, then we will necessarily end up with compounds which have, for example, two hyphens between prefixoids, e.g., *eno-eko-gastroturizam*.

## 6. Coordination in Croatian orthography books: adjectival coordinate compounds

The theory of subordination and coordination is also applicable to other kinds of words. The corpus, as expected, contains the greatest number of adjectival coordinate compounds, and they are also listed in the orthographic rules in almost all the analysed orthography books. Adjectives formed from two (or more) bases are ana-

<sup>20</sup> The example *radio-televizija* is considered to be a coordinate compound consisting of two nouns, and it falls under the rule that states that "two constituents out of which the first does not undergo declension, while both constituents retain their stress, and where the hyphen replaces the conjunct *i*" (2013: 49) are written with a hyphen.

<sup>21</sup> In the BMM (2007: 336) orthography dictionary the following coordinate compounds are listed: *auto-motodrom*, *auto-motodruštvo*, *auto-motosport*.



lysed with respect to their morphological constituents, and in the case of adjectives, these are always *adjective + adjective (+ adjective, etc.)*. In the majority of cases, we are dealing with two colours, e.g., *crno-bijel*<sup>22</sup> ('which is both black and white'), *crno-žut*<sup>23</sup> ('which is both black and yellow'), *crveno-plav*, *modro-plav*, etc. More than two bases can be linked into a coordinate compound, e.g., *crveno-bijelo-plava* (flag). The hyphen in such compounds conveys conjunctive meaning (that of the conjunct *i*). Their main trait is that the change in the order of bases does not result in a change of meaning, e.g., *crveno-bijela* šalica is the same as *bijelo-crvena* šalica, though, from the aspect of pragmalinguistics, the communicative habit of listing the flag colours from top to bottom somewhat relativizes this claim in special cases (which are governed by cultural and social habits). Although all colours can serve as constituents in coordinate compounds (because something can be two-coloured, i.e., be 'of one and another colour'), all colours cannot serve as constituents of subordinate compounds. For example, a *crno-bijela haljina* is a two-colour dress regardless of the distribution of these colours on the dress itself. But can we say that such a thing as *crnobijela haljina* exists? The adjective *crnobijel* would formally be a subordinate compound, but this example is not attested because there is no such colour as 'black with a white sheen' or a colour that could 'as an entity belong both to black and white colour'; that is a colour which would "lean" towards one of these two colours. Following this logic, *plavo-zelen* would be used for an object that is coloured in such a way that the green and blue are clearly demarcated, i.e., two-coloured, while *plavozelen* would be used for an object coloured in a shade that could be classified either as blue or green, i.e., it is in one colour. In all orthography books and language handbooks, such adjectives are written with a hyphen between the constituents when they convey the meaning that something is two-coloured, and as a closed compound when they denote a shade.

On the other hand, the adjective *leksičkosemantički* (AS 1986; AS 2001) is a subordinate compound (→ lexical semantics), while the adjective *leksičko-semantički* (AS 2001) (→ both lexical and semantic) is a coordinate compound. The first compound was created with the help of complex-suffixal formation (and means 'which relates to lexical semantics'), while in the case of the second one two constituents with the same level of meaning are connected with a hyphen which replaces 'i' (such an adjective has the meaning of 'relating to both the lexis and semantics').

There are also adjectives which, in morphological terms, consist of two adjectives (complex-suffixal compounds), i.e., they are based on the principle of coordination, but are traditionally written without a hyphen: e.g., *kratkosilazni* (→ short and descending), *kratkouzlazni* (→ short and ascending), *starodrevni* (→ old and ancient),

<sup>22</sup> It is only found in this form in the corpus.

<sup>23</sup> Out of all the orthography books only Boranić's (1921) lists this compound as: *crnožut*.



*raznorazni* (→ *varied* and *varied*), *gromoglasan* (*booming* and *loud*), *zubnounsneni* (*teeth* and *labial*), *vrhjezičnoprednjotvrdonepčani* (or *vrhjezično-prednjotvrdonepčani* – ‘formed by touching the front hard pallet with the tip of the tongue’), etc. It would be interesting to mention the three following adjectives here: *gluhonijem*, *gluhoslijep*/*gluho-slijep* and *bosanskohercegovački*/*bosansko-hercegovački*, because Croatian orthography books prescribe different ways of writing them. The adjective *bosansko-hercegovački* is listed only with a hyphen in the following orthography books: CGK (1941), AS (2001) and BMM (2007), and as a closed compound in: BFM (1996) and BFM (2000). The CK (1944: 52), AS (1987: 64) and HPIHJJ (2013: 51) orthography books prescribe the difference between the coordinate and subordinate compound. In the CK (1944: 52) orthography book this is explained when discussing adjectival semi-compounds that are created by “merging two adjectives which are equal in meaning”, but with a following comment: “Be careful! Joining of two nouns linked with the conjunct *i* results in a semi-compound adjective (with a hyphen), while joining of a noun and an adjective results in a compound adjective. A complex adjective *bosanskohrvatski* is formed from the phrase *bosanska Hrvatska*, while a semi-compound adjective *bosansko-hercegovački* is formed from *Bosna i Hercegovina*” (1944: 53). The adjective *bosansko-hercegovački* is explained as a two-term adjectival compound in BMM (2007: 155), e.g., *bosansko-hercegovačka reprezentacija* (after *Bosna i Hercegovina*).<sup>24</sup> The adjectival compound *bosanskohercegovački* is prescribed in all editions of the BFM orthography book, as well as in the BM (2010: 127) orthography book under the rule stating that adjectives “derived from binomial geographic names” are written as closed compounds, regardless of whether the first word in the phrase is an adjective or a noun, e.g., *Babina Greda* > *babogredski*, *bosanskohercegovački*, *grubišnopoljski*, etc. Both coordinate and subordinate compounds are prescribed in three orthography books: CK (1944), AS (1987) and HPIHJJ (2013). In HPIHJJ, one rule regulates the way *bosanskohercegovački* is written – two constituents that denote a single concept and have one stress are written as one word (2013: 50–51): “after *Bosna i Hercegovina*, *bosanskohercegovačko-hrvatska granica*” (semantically, this is one country regardless of the conjunct *i* which links the two nouns). In the dictionary, both adjectives can be found: *bosansko-hercegovački* (*bosanski* and *hercegovački*) and *bosanskohercegovački* (after *Bosna i Hercegovina*, *bosanskohercegovačko-hrvatska granica*). In the first example, the constituents are in a coordinated relationship, and this results in two terms. In the second example, the result is a single term (it refers to a whole which is, from the point of view of derivation, binomial), for which it could be said that the concept of coordination disappears from it in the sense of awareness of “twoness” and that

<sup>24</sup> Alongside this adjective (2008: 156) a comment stating that between two adjectives out of which at least one is a two-term adjective, instead of a hyphen, a dash can be used, e.g., *hrvatsko–bosansko-hercegovačka granica*.

it transitions into a concept of “oneness, i.e., a whole”. The adjective *bosansko-hercegovački* falls under the rule that states: “The following are written as hyphenated compounds: a) adjectives with at least two constituents both of which have stress” (2013: 52), e.g., *fizičko-kemijski*. Babić (2002: 416) also lists this adjective and states that only exceptionally “such compounds are true compounds, i.e., when one wishes to emphasise some sort of unity: *bosanskohercegovački* (which relates to Bosnia and Herzegovina as a unified country, otherwise *bosansko-hercegovački*). It would be preferable if the difference which exists in language would also be reflected in writing, but in that case orthographic rules and traditional solutions would have to be redefined. The traditional approach to orthographic notation can also be observed when dealing with the adjective *gluhonijem*. In Croatian orthography books it is traditionally prescribed only as a closed compound: *gluhoniem* in CK (1944), that is, *gluhonijem* in: BFM (1996); BFM (2000); BMM (2007); BM (2010) and HPI-HJJ (2013). In the BMM (2007: 153, 156) orthography book it is classified among merged two-term adjectives, and the adjective *gluho-slijep* čovjek ‘who is (both) deaf and blind’ is written with a hyphen. Besides here, this adjective only appears in the HPIHJJ (2013), but in the following form: *gluhoslijep*; therefore, it is analogous to *gluhonijem*. The meaning of the compound *gluhoslijep|gluho-slijep* contains two concepts (deaf and blind person), and the dictionaries list the following meaning for the adjective *gluhonijem*: ‘who is deaf and mute’ (ŠR) or ‘who cannot hear or speak’ (HJP). From the traditional approach to writing *gluhonijem* it can be deduced that it was used to express, for example, a type of muteness, one that is also accompanied by deafness (not every type of muteness is accompanied by deafness).

## 7. A few notes on other kinds of words

The constituents of the verbs *blagosloviti* (merged) or *rukovoditi* (compound) are in the syntactico-semantic relationship of subordination, while the (verbal) constituents of compounds<sup>25</sup> such as *hoćeš-nećeš*, *povuci-potegni*, *rekla-kazala*, etc., are in the syntactico-semantic relationship of coordination (*i-i* or *ili-ili*)<sup>26</sup> and are written with a hyphen.<sup>27</sup>

<sup>25</sup> Regardless of their categorial meaning (adverb or a noun that cannot undergo declension).

<sup>26</sup> Although the interpretation of the semantic relationship “ili-ili” as coordination or “some kind of coordination” (as Palić (2018: 140) discusses it at the level of syntax) is widely accepted among those who study the Croatian language, it is not undisputed. Still, within the scope of our analysis, we will not deal with whether such a position is justified, but simply note that it is present in the approaches that have also been applied in orthography handbooks.

<sup>27</sup> For more on the relationship of coordination (a) immutable constituents: *amo-tamo*, *brže-bolje*, *danas-sutra*, *zbrda-zdola* and b) mutable constituents: *hoćeš-nećeš* / *hoćeš-ne ćeš*; *htio-ne htio*) and of subordination (e.g., *rak-rana*, *pik-zibner*) between the constituents of phrasemes see Kovačević and Ramadanović (2013).

Adverbial coordinate compounds appear very early on in the orthography books, e.g., the unit *pošto poto* can be found in Broz-Boranić's orthography book from 1904. The relationship of coordination is present in adverbs created from two-term adjectives, e.g., *političko-ekonomski* (from *i politički i ekonomski* → both political and economic). According to Croatian orthography books, the relationship of coordination between the constituents of adverbs is most frequently marked by a hyphen between the constituents, e.g., *brže-bolje*, *danas-sutra*, *gore-dolje*, *lijevo-desno*, *žilavo-kilavo*, etc. This relationship of coordination is sometimes, although very rarely, also reflected in their expression, e.g., *kudikamo*, *kadikad*. Some of them have acknowledged lexicographic status, and as a result, unlike some other kinds of words, they can be found in general and phraseological Croatian dictionaries.<sup>28</sup>

There are no examples of adverbial constituents that are in a coordinate relationship in Croatian orthography books, but we can mention the phraseme semi-compound *uz-niz* which is found in the entry for *uz* in Anić's dictionary and on HJP, accompanied by the following examples "[*to je meni uz-niz*]; (*to je meni*) svejedno; *baš me briga*; *nije mi stalo*; *ni u džep ni iz džepa*; *to je meni ravno*; *brige mene (tebe)*".

Exclamations usually do not pose a problem when it comes to orthography. They are written as one word (e.g., *hahaha*) or with a hyphen (e.g., *ha-ha-ha*). In such a case, the hyphen connects the repeating syllables which form the exclamation (also comp. *pi-pi*, *gic-gic*, *vau-vau*, etc.). the hyphen can also link one repeating sound (e.g., most frequently a vibrant consonant: *br-r-r-r*, *g-r-r-r*). It can also link two or more exclamations that are similar in terms of sounds, i.e., the consonants are the same, but the vowels are different, e.g., *klik-klak*, *tik-tak*. Another type of exclamations has also been noticed, and in them the hyphen links two parts that semantically denote the beginning and end of something, e.g., *bum-tras*, *bum-tres* ('punch and fall').

## 8. Conclusion

Research has revealed that it is important to distinguish two levels when it comes to the issue discussed in this paper. One is that of morphosyntactic word formation, and the other that of semantics. When the morphosyntactic word formation level is based on subordination, the result is always a single term. However, when the morphosyntactic word formation level is based on coordination, the result can be one or more terms. Furthermore, the analysis of the corpus reveals that Croatian orthography books are consistent when it comes to prescribing adverbial coordinate compounds (e.g., *biološko-kemijski*), i.e., they all prescribe that a hyphen, which actually

<sup>28</sup> For example, the adverb *amo-tamo* is listed in the RHJ and ŠR, *kako-tako* in ŠR, *navrat-nanos* in Anić and HER, *zbrda-zdola* in Anić, HER and RHJ.

marks the morphosyntactic, but also semantic, equality of the constituents, should be used between the constituent parts. Discrepancies can be noticed in examples which, at the word-formation level, are based on coordination and denote a single term, i.e., which result in a new meaning. Regarding these, our research has revealed that individual orthography books are usually consistent, but comparison between different orthography books has revealed that some orthographic rules and solutions differ from each other. Most frequently this occurs: (1) in examples in which it is difficult to deduce whether they involve subordination or coordination; (2) if the rules are based on morphosyntactic coordination, and the resulting terms have one new meaning; (3) when the traditional way of writing an individual example is adopted; (4) if the phonological principle (one stress or two stresses) is applied to some examples, and the principle of the first constituent not being able to undergo declension is applied to others, etc.

The abovementioned orthographic discrepancies are preceded by a lack of relevant (comprehensive) discussion and linguistic analysis in language handbooks which deal with the issues of word formation, morphology, semantics, lexicology, lexicography and even orthoepy. In the absence of an adequate description, the authors of orthography books are guided by starting points and ideas about primarily structural relationships between the constituents of a compound or a syntagm, which they consider to be suitable for the establishment of a certain systematisation (which will then also be reflected in the systematisation of orthographic solutions). When we also take into account the result of the word formation process, the newly created word and its meaning, the users of orthographic handbooks are faced with difficulties when it comes to applying systematic solutions.

Every compound necessarily presupposes at least two components from which it is formed and its formational transformations suggest two types of relationships: 1) subordination (*brod + vlasnik* > *brodovlasnik*; 'owner of a ship'; *nafta + rudarstvo* > *naftno rudarstvo* > *naftnorudarski*), and 2) coordination (*grad + država* > *city-state / city state*; city (which is also) and state, hist. a city enclosed by walls with an independent government, e.g., polis in ancient Greece or in modern times, e.g. Vatican, Singapore; *džin + tonik* > *džin-tonik*, gin with tonic; *lovac + bombarder* > *lovac-bombarder / lovac bombarder*, airplane – fighter which is also a bomber; *propan + butan* > *propan-butan / propan butan*; propane and butane, propane with butane, liquid gas or autogas; *točka + zarez* > *točka-zarez / točka zarez*, interpunction mark consisting of a dot with a comma; *zubni + usneni* > *zubnousneni*, e.g. phoneme [v]; *gluh + slijep* > *gluhoslijep/gluho-slijep*; one person with two disabilities; *rudarski + naftni* > *rudarsko-naftni*, mining and oil; *kako + tako* > *kako-tako*, 'such that it can be borne or accepted, in a bearable, acceptable manner, bearable, acceptable'). In principle, this ought to be clear. However, the analysis has revealed that what can be obtained from these relationships that are assumed to be the same

from the perspective of structure and word formation is different, and we have demonstrated that what can be obtained is one or more terms. Therefore, it can be observed that a two term-compound can be created only out of two of the listed coordinate adjectives, *rudarski* and *naftni*.<sup>29</sup> All the other examples, both those that involve subordination and those that involve coordination, result in a single term, i.e., a new meaning. If we take into account that the morphosyntactic principle indicates coordination, e.g., *lovac* / *lovac-bombarder*, *grad država* / *grad-država*; *kako-tako*, but also that this results in a single term: *lovac bombarder* / *lovac-bombarder* ‘type of airplane’; *grad država* / *grad-država* ‘hist. a city enclosed by walls with an independent government’, *kako-tako* ‘such that it can be borne or accepted, in a bearable, acceptable manner’ (one term, new meaning), an analogy can be drawn with the study of subordination and coordination in syntax. This leads us to the conclusion that a coordinate-subordinate relationship exists in such compounds, i.e., that one relationship holds at the structural or morphosyntactic-word formation level (coordination), and another at the semantic level, i.e., at the level of merging their meanings and creating a third, new meaning (subordination).<sup>30</sup> Furthermore, examples of subordinate (e.g., *brodovlasnik*) and coordinate (e.g., *lovac bombarder* / *lovac-bombarder*, *grad država* / *grad-država*; *kako-tako*) relationship between the constituents which create a single term reveal that only two bases participate in such a relationship, while in a coordinate relationship of constituents that create a compound that is always written with a hyphen more than two bases may participate (e.g. *crveno-bijelo-plava zastava*). This is analogous to Pranjković’s opinion according to which the difference between coordination and subordination “also consists in the fact that in coordination there are no restrictions on the number of clauses that can enter into a coordinated sentence” (1980/81: 160) because “coordinated sentences, as a rule, have an open structure, while complex ones have a closed structure” (Pranjković 1980/81: 162).

Possible future extensions of this work include semantic research of the coordinate compounds. Taking into consideration that in this paper the analysis of coordinate compounds was conducted on the corpus of written examples, and with primary focus on the application of the orthographic solutions, it would be worth-

<sup>29</sup> A combination of adjectival links created by two or more surnames, e.g., *Babić-Finka-Mogušev* (orthography book), sporazum *Cvetković-Maček* (treaty) or *sapir-vorfovski* (sense) follows the same logic.

<sup>30</sup> It is interesting to mention here that “considering the coordination-subordination interferences” Palašić (2018: 21) explains the interesting results of Roberta Van Valin’s (1984) studies of exotic languages which have revealed “that the dichotomic distinctiveness of coordination and subordination is not universal” and on the bases of which he “reached the conclusion that in addition to the traditional coordinated and complex sentences there is also a third type, which he termed cosubordinated sentences”. Cosubordination involves dependant coordination, i.e., “cosubordinated sentences would, in other words, be those whose morphosyntactic criteria indicate coordination, and whose semantic criteria indicate subordination”.

while to conduct this research from the point of view of the speakers. Speakers' understanding of the relevant compounds could reveal a true level of importance of the concepts reported as coordination and subordination, in constructing the semantic field of compounds.

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## List of sources

1) The list of analysed orthography books and the short-form names used to refer to them in the paper<sup>31</sup>, in alphabetical order:

- AS (1986)**: Anić, Vladimir; Silić, Josip. 1986. *Pravopisni priručnik hrvatskoga ili srpskoga jezika*. Zagreb.
- AS (2001)**: Anić, Vladimir; Silić, Josip. 2001. *Pravopis hrvatskoga jezika*. Zagreb.
- BB<sup>32</sup> (1904)**: Broz, Ivan. <sup>3</sup>1904. *Hrvatski pravopis*. Revised edition, prepared by: Dragutin Boranić. Zagreb.
- BB (1906)**: Broz, Ivan. <sup>4</sup>1906. *Hrvatski pravopis*. Prepared by: Dragutin Boranić. Zagreb.
- BB (1911)**: Broz, Ivan. <sup>5</sup>1911. *Hrvatski pravopis*. Prepared by: Dragutin Boranić. Zagreb.
- BFM (1971)**: Babić, Stjepan; Finka, Božidar; Moguš, Milan. 1971. *Hrvatski pravopis*. Zagreb: Školska knjiga.
- BFM (1996)**: Babić, Stjepan; Finka, Božidar; Moguš, Milan. <sup>4</sup>1996. *Hrvatski pravopis*. Zagreb: Školska knjiga.
- BFM (2000)**: Babić, Stjepan; Finka, Božidar; Moguš, Milan. <sup>5</sup>2000. *Hrvatski pravopis*. Zagreb: Školska knjiga.
- BHM (2008)**: Babić, Stjepan; Ham, Sanda; Moguš, Milan. <sup>2</sup>2008. *Hrvatski školski pravopis*. Harmonised with the conclusions of the Council for the Norm of the Croatian Standard Language. Zagreb: Školska knjiga.
- BM (2010)**: Babić, Stjepan; Moguš, Milan. <sup>1</sup>2010. *Hrvatski pravopis*. Harmonised with the conclusions of the Council for the Norm of the Croatian Standard Language. Zagreb: Školska knjiga.
- BMM (2007)**: Badurina, Lada; Marković, Ivan; Mićanović, Krešimir. 2007. *Hrvatski pravopis*. Zagreb: Matica hrvatska.

<sup>31</sup> These were created to avoid repeating the full titles and names of authors which would make the text more difficult to read.

- Boranić (1921):** Boranić, Dragutin. 1921. *Pravopis hrvatskoga ili srpskoga jezika*. Zagreb.
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- Boranić (1930):** Boranić, Dragutin. 1930. *Pravopis hrvatskoga ili srpskoga jezika*. Fifth edition revised according to the rules of the Ministry of Education. Zagreb.
- Boranić (1941):** Boranić, Dragutin. 1941. *Pravopis hrvatskoga ili srpskoga jezika*. Zagreb: Izdanje Nakladnoga zavoda Banovine Hrvatske.
- Boranić (1951):** Boranić, Dragutin. 1951. *Pravopis hrvatskoga ili srpskoga jezika*. Zagreb: Školska knjiga.
- Broz (1892):** Broz, Ivan. 1892. *Hrvatski pravopis*. Zagreb.
- Broz (1893):** Broz, Ivan. 1893. *Hrvatski pravopis*. Zagreb.
- CGK (1941):** Cipra, Franjo; Guberina, Petar; Krstić, Kruno. 1941. *Hrvatski pravopis*. (Reprint: 1998. ArTresor. Zagreb.)
- CK (1944):** Cipra, Franjo; Klaić, Adolf Bratoljub (with collaboration of the members of the Office for the Croatian Language) 1944. *Hrvatski pravopis*. Zagreb. (Reprint: *Hrvatski koirijenski pravopis*. 1992. Zagreb.)
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- MH – MS (ŠI) (1960):** *Pravopis hrvatskosrpskoga jezika*. 1960. Školsko izdanje. Zagreb – Novi Sad.

2) List of language handbooks and web corpora and the short-form names used to refer to them in the paper, which were used in corpus analysis (in alphabetical order)

- Anić:** Anić, Vladimir. 1996. *Rječnik hrvatskoga jezika*. Zagreb: Novi Liber.
- AR:** *Rječnik hrvatskoga ili srpskoga jezika*. 1880. – 1976. I–XXIII. Zagreb: JAZU.
- AŠR:** *Aničev školski rječnik hrvatskoga jezika*. 2015. Zagreb: Znanje.
- BHŽ:** Brabec, Ivan; Hraste, Mate and Živković, Sreten. 1958. *Gramatika hrvatskoga ili srpskoga jezika*. Zagreb: Školska knjiga.
- GJH:** Silić, Josip; Pranjković, Ivo. 2005. *Gramatika hrvatskoga jezika, za gimnazije i visoka učilišta*. Zagreb: Školska knjiga.
- HER:** *Hrvatski enciklopedijski rječnik*. 2002. Zagreb: Novi Liber.
- HG:** Barić, Eugenija et al. 1995., 1997. *Hrvatska gramatika*. Zagreb: Školska knjiga.
- HJS:** Barić, Eugenija et al. 1999. *Hrvatski jezični savjetnik*. IHJJ. Zagreb.
- Pavešić:** *Jezični savjetnik s gramatikom*. 1971. Ed. Pavešić, Slavko. Zagreb: Matica hrvatska.

**RHJ:** Šonje, Jure (Ed.). 2000. *Rječnik hrvatskoga jezika*. Leksikografski zavod “Miroslav Krleža” – Zagreb: Školska knjiga.

**ŠR:** Birtić, Matea; Bartolec, Goranka Blagus; Hudeček, Lana; Jojić, Ljiljana; Kovačević, Barbara; Lewis, Kristian; Matas Ivanković, Ivana; Mihaljević, Milica; Miloš, Irena; Ramadanović, Ermina; Vidović, Domagoj. 2012. *Školski rječnik hrvatskoga jezika*. Zagreb: Školska knjiga – Institut za hrvatski jezik i jezikoslovlje. Online edition available at: <http://rjecnik.hr/> (accessed until 2 November 2021)

**VRH:** *Veliki rječnik hrvatskoga standardnog jezika*. 2015. Zagreb: Školska knjiga.

### 3) Web corpora

**Google:** web browser (limited to the corpus in Croatian and within the .hr domain). Examples taken from *Google* belong to the standard language; (accessed until 2 November 2021)

*Hrvatska enciklopedija*, online edition. Zagreb: Leksikografski zavod “Miroslav Krleža”, at: <https://www.enciklopedija.hr/> (accessed until 2 November 2021)

**HJP:** *Hrvatski jezični portal*, Dictionary of the Croatian Language, *Znanje* and *Srce*; at: <http://hjp.znanje.hr/>

**HJR:** *Hrvatska jezična riznica*, Croatian online language corpus of the Institute of Croatian Language and Linguistics; at: <http://riznica.ihjj.hr/> (accessed until 2 November 2021)

**hrWaC:** web corpus compiled from the.hr domain; at: <http://nlp.ffzg.hr/resources/corpora/hrwac/> (accessed until 2 November 2021)

Appendix: Glosses and translation in English of the Croatian examples used in text

Lexeme	glosses	translation
agrobiologija (NOUN F. SG.)	agrobiology	agrobology
alfa-numerički (ADJ. M. SG.)	alpha-numeric	alpha-numeric
amo-tamo (ADV.)	here-there	back and forth
antropologija (NOUN F. SG.)	anthropobiology	anthropobiology
audio-videooprema (NOUN F. SG.)	audio-videoequipment	audio and video equipment
Austro-Ugarska (ADJ. F. SG.)	Austro-Hungary	Austro-Hungary
Austro-ugarska (ADJ. F. SG.) nagodba (NOUN F. SG.)	Austrian-Hungarian agreement	the Austro-Hungarian compromise
automobil (NOUN M. SG.) bomba (NOUN F. SG.)	car bomb	car bomb
auto-motodrom (NOUN M. SG.)	auto-motodrome	auto-motodrome
automotodruštvo (NOUN N. SG.)	automotocompany	automotive company
auto-motodruštvo (NOUN N. SG.)	auto-motocompany	automotive company
auto-motosport (NOUN M. SG.)	auto-motosport	auto-motosport
Babić-Finka-Mogušev (ADJ. M. SG.)	Babić-Finka-Moguš's	Babić, Finka, Moguš's
Babina (ADJ. F. SG.) Greda (NOUN, F. SG.)	Babina Greda	toponym
babogredski (ADJ. M. SG.)	bab- NOUN ROOT MOR- PHEME	-ski ADJ. SUFFIX M. SG.
	-o- CONNECTIVE	
basnopisac (NOUN M. SG.)	basn- NOUN ROOT MORPHEME	-o- CONNECTIVE
	fable	pisac NOUN writer
bibliografija (NOUN F. SG.)	bijel- ADJ. ROOT MOR- PHEME	bibliography
		-o- CONNECTIVE
bijelo-crvena (ADJ. F. SG.) šalica	white	šalica NOUN, F. SG.
	white	red cup
biobibliografija (NOUN F. SG.)	biobibliography	bio-bibliography
bio-bibliografija (NOUN F. SG.)	bio-bibliography	bio-bibliography
bio-bibliografski (ADJ. M. SG.)	bio-bibliography's	bio-bibliography's
biografija (NOUN F. SG.)	biography	biography
biografska (ADJ. F. SG.) bibliografija (NOUN F. SG.)	biographic bibliography	biographic bibliography

biološko-kemijski (ADJ. F. SG.)		biological-chemical		bio-chemical
biser-grana (NOUN F. SG.)	biser-grana			pearl branch
	noun m. sg.-noun f. sg			
	pearl-branch			
biserna (ADJ. F. SG.) grana (NOUN F. SG.)		pearl branch		pearl branch
	blago	sloviti		
	ADVERB	VERB		
blagosloviti, VERB, INF.	mild	to talk (archaism)		bless
Bog, NOUN M. SG.		God		God
	bog-	-o-	čovjek	
bogočovjek (NOUN, M. SG.)	NOUN, ROOT MORPHEME	CONNECTIVE	NOUN	god-man
	God		man	
bombarder (NOUN, M. SG.)	bombard-	-er		bomber
	VERB ROOT MORPHEME	NOUN SUFFIX, M. SG.		
	to bomb			
bombaš (NOUN, M. SG.) samoubojica (NOUN, M/F. SG.)		bomber suicide		suicide bomber
bosanska Hrvatska		Bosnian Croatia		Bosnian Croatia
bosansko-hercegovačka (ADJ. F. SG.) reprezentacija (NOUN F. SG.)		Bosnian-Herzegovinian national team		Bosnia-Herzegovina national team
bosanskohercegovački (ADJ. M. SG.)	bosansk-	-o-	hercegovački	Bosnian-Herzegovinian
	ADJ. ROOT MORPHEME	CONNECTIVE	ADJ. M. SG.	
	Bosnian		Herzegovinian	
bosansko-hercegovački (ADJ. M. SG.)	bosansk-	-o-	hercegovački	Bosnian-Herzegovinian
	ADJ. ROOT MORPHEME	CONNECTIVE	ADJ. M. SG.	
	Bosnian		Herzegovinian	
Bosna (NOUN M. SG.) i (CONJ.) Hercegovina (NOUN F. SG.)		Bosnia and Herzegovina		Bosnia and Herzegovina

brat-nebrat (NOUN M. SG.)	brat-nebrat		a brother behaving like he is not a brother (a brother who failed the expectations)
	noun m. sg.-noun f. sg		
	brother-nonbrother		
brodovlasnik (NOUN M. SG.)	brod-	vlasnik	ship owner
	NOUN, ROOT MORPHEME	CONNECTIVE	
	ship	owner	
brod-dizalica (NOUN F. SG.)		ship-crane	crane ship
	brod-	-o-	
	NOUN, ROOT MORPHEME	CONNECTIVE	
brodogradnja (NOUN F. SG.)		gradnja	shipbuilding
	brod-	-o-	
	NOUN, ROOT MORPHEME	CONNECTIVE	
br-r-r (EXCL.)	ship	building	exclamation indicating going cold
brže-bolje (ADV.)	brže-bolje		hastily
	adv.-adv.		
	faster-better		
bugj-yugi (NOUN M. SG.)			boogie woogie
bum-tras (EXCL.)	bum-tras		onomatopoeic exclamation indicating that something has fallen down
	EXCL.-EXCL.		
bum-tres (EXCL.)	bum-tres		onomatopoeic exclamation indicating that something has fallen down
	excl.-excl.		
crno-bijel (ADJ. M. SG.)	crn-	-o-	black and white
	ADJ. ROOT MORPHEME	CONNECTIVE	
	Black	white	
crno-bijel (ADJ. M. SG.)	crn-	-o-	black and white
	ADJ. ROOT MORPHEME	CONNECTIVE	
	black	white	
crnobijela (ADJ. F. SG.) hajlina (NOUN F. SG.)	crn-	-o-	black and white dress
	ADJ. ROOT MORPHEME	CONNECTIVE	
	black	white	
hajlina (NOUN F. SG.)	crn-	-o-	black and white dress
	ADJ. ROOT MORPHEME	CONNECTIVE	
	black	white	



crno-bijela (ADJ. F. SG.) haljina	crn-	-o-	bijela	haljina	black and white dress
	ADJ. ROOT MORPHEME black	CONNECTIVE	ADJ. F. SG. white	NOUN F. SG. dress	
crno-crven (ADJ. M. SG.)	crn-	-o-		crven	black and red
	ADJ. ROOT MORPHEME black	CONNECTIVE		ADJ. M. SG. red	
crno-žut (ADJ. M. SG.)	crn-	-o-		žut	black and yellow
	ADJ. ROOT MORPHEME black	CONNECTIVE		ADJ. M. SG. yellow	
crveno-bijel (ADJ. M. SG.)	crven-	-o-		bijel	red and white
	ADJ. ROOT MORPHEME red	CONNECTIVE		ADJ. M. SG. white	
crveno-bijela (ADJ. F. SG.) šalica	crven-	-o-	bijela	šalica	red and white cup
	ADJ. ROOT MORPHEME red	connective	adj. f. sg. white		
crveno-bijelo-plav (ADJ. M. SG.)	crven-	-o-	bijel-	-o-	red, white and blue
	ADJ. ROOT MORPHEME red	CONNECTIVE	ADJ. ROOT MORPHEME white	CON- NEC- TIVE plav ADJ. M. SG.	
crveno-bijelo-plava (ADJ. F. SG.)	crven-	-o-	bijel-	-o-	red, white and blue
	ADJ. ROOT MORPHEME red	CONNECTIVE	ADJ. ROOT MORPHEME white	CON- NEC- TIVE plava ADJ. F. SG.	
crveno-plav (ADJ. M. SG.)	crven-	-o-		plav	red and blue
	ADJ. ROOT MORPHEME red	CONNECTIVE		ADJ. M. SG. blue	

Cvetković-Maček (NOUN M. SG.)	Cvetković-Maček noun m. sg-noun m. sg. Cvetković-Macek	Cvetković and Macek (surnames of two politicians)
česko-poljski (ADJ. M. SG.)	česko- ADJ. ROOT MORPHEME Czech	poljski ADJ. M. SG. Polish
čovjek (NOUN M. SG.) žaba (NOUN F. SG.)	čovjek- man frog	frogman
čovjek-genij (NOUN M. SG.)	čovjek-genij noun m. sg-noun m. sg man-genius	genius man
dan (NOUN M. SG.) i (CONJ.) noć (NOUN F. SG.)	dan and	pansy (a flower <i>Viola tricolor</i> )
danas-sutra (ADV.)	danas-sutra adv.-adv. today-tomorrow	sooner or later
daninoć (NOUN F. SG.)	dan NOUN M. SG. day	pansy (a flower <i>Viola tricolor</i> )
dan-i-noć (NOUN F. SG.)	dan-noć noun m. sg-noun m. sg. day-night	pansy (a flower <i>Viola tricolor</i> )
dan-noć (NOUN F. SG.)	dan-noć noun m. sg-noun m. sg. day-night	children's game
dragoljub (NOUN M. SG.)	drag- ADJ. ROOT MORPHEME dear	garden nasturtium (a flower <i>Tropaeolum majus</i> )
Dragoljub (NOUN M. SG.) država (NOUN F. SG.)	see: dragoljub state	Dragoljub (male name) state

džin-tonik (NOUN M. SG.)	džin-tonic				gin-tonic
	noun m. sg.-noun m. sg.				
	gin-tonic				
ekoetnoturizam (NOUN M. SG.)			ecoethnotourism		eco-ethno tourism
			eco-ethnotourism		eco-ethno tourism
eko-etnoturizam (NOUN M. SG.)			electroagriculture		electroagriculture
			enoecogastrotable		eno-eco-gastro table
elektroagrikultura (NOUN F. SG.)			eno-eco-gastrotable		eno-eco-gastro table
			eno-eco-gastrotable		eno-eco-gastro table
eno-eko-gastrostol (NOUN M. SG.)			enogastrotable		eno-gastro hotel
			enogastrotable		eno-gastro table
eno-eko-gastroturizam (NOUN M. SG.)			ethnomusicology		ethnomusicology
			Eurasia		Eurasia
enogastrohotel (NOUN M. SG.)			Europe		Europe
			phytopathology		phytopathology
etnomuzikologija (NOUN F. SG.)			physico-chemical		physico-chemical
					exclamation used for luring the pigs
Euroazija (NOUN F. SG.)					deaf-mute
Europa (NOUN F. SG.)					
fitopatologija (NOUN F. SG.)					
fizičko-kemijski (NOUN M. SG.)					
gic-gic					
gluhonijem (ADJ. M. SG)	gluh-	-o-	nijem		
	ADJ. ROOT MORPHEME	CONNECTIVE	ADJ. M. SG.		
gluhoslijep (ADJ. M. SG)	deaf		mute		
	gluh-	-o-	slijep		
gluho-nijem (ADJ. M. SG)	ADJ. ROOT MORPHEME	CONNECTIVE	ADJ. M. SG.		
	deaf		blind		
gore-dolje (ADV.)	gluh-	-o-	nijem		
	ADJ. ROOT MORPHEME	CONNECTIVE	ADJ. M. SG.		
	deaf		mute		
grad (NOUN M. SG.) država (NOUN F. SG.)			city state		city state
			city hero		hero city
grad (NOUN M. SG.) heroj (NOUN M. SG.)					

grad-država (NOUN F. SG.)	grad-država	grad-država			city state
	noun m. sg.-noun f. sg.				
	city-state	-graphy			-graphy
-grafija					
	grješnik-pisac (NOUN M. SG.)	grješnik-pisac			writer who is a sinner
	noun m. sg.-noun m. sg.	sinner-writer			
gromoglasan (ADV. M. SG.)	grom-	-o-	glasan		thunderous, booming
	NOUN ROOT MORPHEME	CONNECTIVE	ADJ. M. SG.		
	thunder		loud		
g-f-f					
	grubišno-	polj-	-ski		exclamation indicating anger from Grubišno Polje
	ADJ. N. SG.	NOUN ROOT MORPHEME	SUFFIX, M. SG.		
Grubišno	Polje	's			
hahaha					
	ha-ha-ha	hoćeš-nećeš			exclamation indicating laughter exclamation indicating laughter
	hoćeš-nećeš	praes. 2. sg. – praes. 2. sg.			
	will-not will				
hoćeš-ne ćeš	see: hoćeš-nećeš				
	hrvatsk-	-o-	bosansk-	-o-	hercegovačka
	ADJ. ROOT MORPHEME	CONNECTIVE	ADJ. ROOT MORPHEME	CON- NEC- TIVE	ADJ. F. SG.
hrvatsko-bosansko-hercegovačka (ADJ. F. SG.) granica (NOUN F. SG.)	Croatian		Bosnian		border between Croatia and Bosnia-and-Herzegovina
		htio-ne htio		Herzegovinian	
		ptcp. perf. m. sg. – ptcp. perf. m. sg.			
htio-ne htio		wanted-not wanted			willy-nilly

igra-predstava (NOUN F. SG.)	igra-predstava		play		
	noun f. sg.-noun f. sg.				
	game-play				
istok-sjeveroistok (NOUN M. SG.)	istok	sjever	-o-	istok	east-northeast
	NOUN. M. SG.	NOUN, M. SG.	CONNECTIVE	NOUN. M. SG.	
	east	north		east	
	ivan-cvijet				
ivan-cvijet (NOUN M. SG.)	noun m. sg. (personal male name)-noun. m. sg.				
	ivan-flower				
jug-jugoistok (NOUN M. SG.)	jug	jug-	-o-	istok	south-southeast
	NOUN M. SG	NOUN ROOT MORPHEME	CONNECTIVE	NOUN M. SG.	
	south	south		east	
	jug-				
jugoistok (NOUN M. SG.)	NOUN ROOT MORPHEME		CONNECTIVE	istok	southeast
	south			NOUN M. SG.	
	jug-		-o-	east	
	NOUN ROOT MORPHEME		CONNECTIVE	istok	
jugo-jugoistok (NOUN M. SG.)	NOUN ROOT MORPHEME		CONNECTIVE	istok	south-southeast
	south			NOUN M. SG.	
	jug-		-o-	east	
	NOUN ROOT MORPHEME		CONNECTIVE	istok	
jugo-jugoiztok (NOUN M. SG.)	see: jugo-jugoistok				
	jug-	-o-	jug-	-o-	zapad
	NOUN ROOT MORPHEME	CONNECTIVE	NOUN ROOT MORPHEME	CONNECTIVE	NOUN M. SG.
	south	south	south		west
jugozapad	jug-	-o-	zapad		southwest
	NOUN ROOT MORPHEME	CONNECTIVE	NOUN M. SG.		
	south		west		
	see: jugozapad				

Junak-djevojka (NOUN F. SG.)	Junak-djevojka		hero-girl
	noun m. sg.-noun f.sg.		
	hero-girl		
kadikad (ADV)	kad	i kad	now and then
	ADV.	CONJ. ADV.	
	when	and when	
kako-tako		kako-tako	such that it can be borne or accepted, in a bearable, acceptable manner, bearable, acceptable
		adv.-adv.	
		how-so	
kamen (NOUN M. SG.) temeljac (NOUN M. SG.)		stone foundation	cornerstone
kasica-prasica (NOUN F. SG.)	kasica-prasica		piggy bank
	noun f. sg.-noun f. sg.		
	bank-piggy		
kasica (NOUN F. SG.) prasica (NOUN F. SG.)	piggy bank		piggy bank
	klik-klak		
	EXCL.-EXCL.		
kloroaceton (NOUN M. SG.)	chloroacethone		chloroacethone
	klor-	-o-	
	NOUN ROOT MORPHEME	CONNECTIVE	
klorovodik (NOUN M. SG.)	chlorine		hydrogen-chloride
		hydrogen	
ključ-razlikovnik (NOUN M. SG.)	ključ-razlikovnik		identification key
	noun m. sg.-noun m. sg.		
	key-differential		
književnoteorijski	literarytheoretical		literary-theoretical



kolovoz (NOUN M. SG.)	kol-	-O	VOZ-	August
	NOUN ROOT MORPHEME hay wagon	CONNECTIVE	VERB ROOT MORPHEME drive	
kozmiologija (NOUN F. SG.) kratkostlazni (ADJ. M. SG.) kudikamo (ADV.)			cosmobiology shortfalling whereandwhere	cosmobiology short-falling whole lot more
	kup-	-O	prodaja	purchase and sale
lekšičkosemantički (ADJ. M. SG.) lekšičko-semantički (ADJ. M. SG.)	VERB ROOT MORPHEME buy	CONNECTIVE	NOUN F. SG. sale	
			lexicalsemantical	lexico-semantic
lijevo-desno (ADV.)			leksičko-semantički	
			adv.-adj. m. sg.	lexico-semantic
			lijevo-desno adv.-adv. left-right	left-right
lingvistilistika (NOUN F. SG.) lovac-bombarder (NOUN M. SG.)			linguostylistics	linguo-stylistics
			lovac-bombarder	
			noun m. sg.-noun m. sg. hunter-bomber	Multirole combat aircraft
			lovac-sakupljač	
lovac-sakupljač (NOUN M. SG.)			noun m. sg.-noun m. sg. hunter-gatherer	hunter-gatherer
			judi-žabe	
judi-žabe (NOUN M. PL.)			noun m. pl.-noun f. sg. men-frogs	frogmen
			microtoponomastika	microtoponomastics

minus-vodič (NOUN M. SG.)	minus-vodič		minus-wire
	noun m. sg.-noun m. sg.		
	minus-conductor		
Miodrag (NOUN M. SG.)	mio	drag	Miodrag (male name)
	ADJ. M. SG.	ADJ. M. SG.	
	dear	dear	
	modr	o- CONNECTIVE	
modro-plav (ADJ. M. SG.)	ADJ. ROOT MORPHEME	plav	deep blue-blue
	deepblue	ADJ. M. SG.	
		blue	
morfonologija (NOUN F. SG.)	morphology		morphology
	motovelodrom		
motovelodrom (NOUN M. SG.)	moto-velodrome		moto-velodrome
moto-velodrom (NOUN M. SG.)	moto-velodrome		moto-velodrome
	naftn-	-o-	
	ADJ. ROOT MORPHEME	CONNECTIVE	
	oil	mining's	
naftno (ADJ. N. SG.) rударство (NOUN N. SG.)	oil mining		oil mining
	navrat-nanos		
	adv.-adv.		
	on the neck-on the nose		
parobrod (NOUN M. SG.)	par-	-o-	steamship
	NOUN ROOT MORPHEME	CONNECTIVE	
	steam	brod	
		NOUN M. SG.	
pedopsihologija (NOUN F. SG.)	pedopsychology		pedopsychology
	pilot hunter		
pilot (NOUN M. SG.) lovac (NOUN M. SG.)	pilot-lovac		fighter pilot
	noun m. sg.-noun m. sg.		
	pilot-hunter		

pismo-bomba (NOUN F. SG.)	pismo-bomba	letter bomb	
	noun n. sg.-noun f. sg.		
	letter-bomb		
plavozelen (ADJ. M. SG.)	plav-	-o-	zelen
	ADJ. ROOT MORPHEME	CONNECTIVE	ADJ. M. SG.
	blue		green
	plav-	-o-	zelen
plavo-zelen (ADJ. M. SG.)	ADJ. ROOT MORPHEME	CONNECTIVE	ADJ. M. SG.
	blue		green
pneumoencefalografija (NOUN F. SG.)		pneumoencephalography	
političko-ekonomski (ADJ. M. SG.)	političk-	-o-	ekonomski
	ADJ. ROOT MORPHEME	CONNECTIVE	ADJ. M. SG.
	politic		economic
pošto (Adv.) povuci-potegni (ADV.)		how much that much	
		povuci-potegni	
		imper. 2. sg. – imper. 2. sg.	
primopredaja (NOUN F. SG.)		pull-draw	
	prim-	-o-	predaja
	VERB ROOT MORPHEME	CONNECTIVE	NOUN F. SG.
	receive		handover
propan (NOUN M. SG.) butan (NOUN M. SG.)		propane butane	
		propan-butan	
		noun m. sg.- noun m. sg.	
psihofizički (ADJ. M. SG.)		propane-butane	
		psychophysical	
		radiobiology	
radiotelevizija (NOUN F. SG.)		radiotelevision	
		radio and television	
radio-televizija (NOUN F. SG.)		radiotelevision	
		radio and television	

radio-televizijski (ADJ. M. SG.)	radio-televizijski	radio-televizijski	radio-television
	noun root morpheme-adj. m. sg.		
	radio-television		
rak-rana (NOUN F. SG.)	rak-rana	rak-rana	weak spot
	noun m. sg.-noun f. sg.	noun m. sg.-noun f. sg.	
	cancer-wound	cancer-wound	
raznorazni (ADJ. M. SG.)	razno-razni	razno-razni	all sorts
	adv.-adj. m. sg.	adv.-adj. m. sg.	
	differently-different	differently-different	
rekla-kazala (ADV.)	rekla-kazala	rekla-kazala	hearsay
	ptcp. f. sg.-ptcp.f. sg.	ptcp. f. sg.-ptcp.f. sg.	
	said-told	said-told	
riječ-termin (NOUN M. SG.)	riječ-termin	riječ-termin	term
	noun m. sg.-noun m. sg.	noun m. sg.-noun m. sg.	
	word-term	word-term	
rok-glazba (NOUN F. SG.)	rok-glazba	rok-glazba	rock music
	noun m. sg.- noun f. sg.	noun m. sg.- noun f. sg.	
	rock-music	rock-music	
rudarsko-naftni	rudarsk-	rudarsk-	mining and oil
	ADJ. ROOT MORPHEME	-o-	naftni
	mining (adjective)	CONNECTIVE	ADJ. M. SG.
rukovoditi (VERB)	ruk-o-voditi	ruk-o-voditi	to manage
	noun f. sg.-connective-verb. inf.	noun f. sg.-connective-verb. inf.	
	hand leading	hand leading	
sapir-vorfovski	Sapir-Whorf's	Sapir-Whorf's	Sapir-Whorf's
	sjever	-o-	istok
	NOUN M. SG.	CONNECTIVE	NOUN M. SG.
sjeveroistok (NOUN M. SG.)	north		north-east
			east

sjevero-istok (NOUN M. SG.)	sjever	-o-	istok	north-east	
	NOUN M. SG. north	CONNECTIVE	NOUN M. SG. east		
sjeveroiztok (NOUN M. SG.)	see: sjeveroistok				
	sjeverozapad (NOUN M. SG.)	sjever	-o-	zapad	north-west
NOUN M. SG. north		CONNECTIVE	NOUN M. SG. west		
sjever-sjeverozapad (NOUN M. SG.)	sjever-	sjever-	-o-	zapad	north-northwest
	NOUN M. SG. north	NOUN ROOT MORPHEME north	CONNECTIVE	NOUN M. SG. west	
	slovensko-	ADJ. ROOT MORPHEME Slovenian-	-o-	hrvatski	
slovensko-hrvatski (ADJ. M. SG.)	ADJ. ROOT MORPHEME		CONNECTIVE	ADJ. M. SG. Croatian	Slovenian and Croatian
	Slovenian-				
soihljebnik (NOUN M. SG.)	so-	i	hljeb-	-nik	a friend who eats a bread and salt with a friend
	NOUN M. SG.	CONJ.	NOUN ROOT MORPHEME	SUFFIX	
	salt	and	bread	-er	
	spektrofonokardiografija (NOUN F. SG.)		spectrophonocardiography		
sporazum (NOUN M. SG.)	Cvetković-Maček (NOUN M. SG.)		treaty Cvetković-Macek		spectral phonocardiography Cvetković-Macek treaty
	starodrevni (ADJ. M. SG.)				
starodrevni (ADJ. M. SG.)	star-	-o-	drevni	ancient	
	ADJ. ROOT MORPHEME old	CONNECTIVE	ADJ. M. SG. ancient		
stenodaktilograf (NOUN M. SG.)	stenodaktilograf		stenodactyligraph		stenodactyligraph stereophotogrammetry
	stereofotogrametrija (NOUN F. SG.)		stereophotogrammetry		
šah-mat (NOUN M. SG.)	check-mate		check-mate		checkmate in chess: attack on queen
	šah-šeh (NOUN M. SG.)		in chess: attack on queen		

taksi-vozač (NOUN M. SG.)	taksi-vozač				taxi driver
	noun m. sg.-noun. m. sg.				
	taxi-driver				
telefotografija (NOUN F. SG.) tik-tak (EXCL.)		telephotography			telephotography
		tick-tock			tick-tock
točka-zarez (NOUN M. SG.)	točka-zarez				semicolon
	noun f. sg.- noun m. sg.				
	dot-comma				
točka (NOUN F. SG.) zarez (NOUN M. SG.)		dot comma			semicolon
	uz-niz				
	praep.-praep.				up and down
vau-vau (excl.)		up-down			
		woof-woof			woof-woof
		apical-frontalpalatal			apical-frontal-palatal
vrhjezičnoprednjotvrdonepčani		apical-frontalpalatal			apical-frontal-palatal
		apical-frontalpalatal			apical-frontal-palatal
					west-southwest
zapad-jugozapad (NOUN M. SG.)	zapad	jug-	-o-	zapad	
	NOUN M. SG.	NOUN ROOT MORPHEME	CONNECTIVE	NOUN M. SG.	
	west	south		west	
	zapad	sjever-	-o-	zapad	
	NOUN M. SG.	NOUN ROOT MORPHEME	CONNECTIVE	NOUN M. SG.	
zapad-sjeverozapad (NOUN M. SG.)	west	north		west	
	*zapad-		-o-	jug	
	NOUN M. SG.	CONNECTIVE		NOUN M. SG.	
	west-			south	
	s	brda	s	dola	
zbrda-zdola (ADV.)	PRAEP.	NOUN GEN. M. SG.	PRAEP.	NOUN GEN. M. SG.	
	from	hill	from	vally	
					without order, topsy-turvy

zemlja-zrak-raketa	zemlja-zrak-raketa	zemlja-zrak-raketa	surface to air missile
	noun f. sg.-noun m. sg.-noun f. sg.		
	earth-air-missile		
zoopaleontologija (noun f. sg.)		zoopaleontology	paleozoology
	zubnounsneni	zubn-o-usneni	
žena (noun f. sg.) akademik (noun m. sg.)		adj. root morpheme – connective – adj. m. sg.	labiodental
	žena (noun f. sg.) radnica (noun f. sg.)	dentallabial	
	žena (noun f. sg.) heroj (noun m. sg.)		female academic
žena-heroj (noun with split grammatical gender: both parts of the compound decline – 1. after the f. sg., 2. after the m. sg.)		female academic	female academic
		female worker	female worker
		female hero	heroine
		žena-heroj	
		noun f. sg.- noun m. sg.	heroine
žilavo-kilavo (adv.)		female-hero	
		žilavo-kilavo	
		adv.-adv.	strongly-weakly
		tough-lame	



## KOORDINACIJA KROZ POVIJEST HRVATSKOGA PRAVOPISANJA

Subordinacija i koordinacija nazivi su koji se u suvremenom jezikoslovlju najčešće upotrebljavaju u sintaksi te se koordinacija uobičajeno odnosi na nezavisnosložene rečenice, a subordinacija na zavisnosložene rečenice. U ovom se radu fenomen koordinacije promatra na razini sintagme, odnosno na suodnosu sintagme i riječi. Riječ se razumijeva pravopisno, tj. kao ono što se nalazi između dviju bjelina, ali s tvorbenim (i morfološkim) ograničenjem na tvorenice s najmanje dvjema tvorbenim osnovama. Najveći je problem u tom smislu polusloženična tvorba u tradicijskom smislu te shvaćanje funkcije spojnice ili crtice. Spojnica pritom ima dvije funkcije, formalnu (ortografsko-tvorbenu) i semantičko-sintaktičku. Formalna funkcija odnosi se na povezivanje najmanje dviju tvorbenih sastavnica (osnova), a semantičko-sintaktička funkcija razumijeva dvoje: subordinaciju – povezuje tvorbene osnove od kojih je jedna nadređena (jednopoimovne složenice) i koordinaciju – povezuje ravnopravne tvorbene osnove (višepojimovne složenice). Isti se problem javlja i u složenicama i sraslicama, tj. onim jednorječnim jezičnim jedinicama u kojima je redoslijed sastavnica isti kao u sintagmi ili svezi riječi od kojih su nastale. U ovome radu spomenutom se tvorbeno-morfološkom problemu pristupa s aspekta ortografske diakronije, pri čemu se u korpusu hrvatskih pravopisnih knjiga analiziraju pristupi koji su primijenjeni u pravopisnom normiranju zapisivanja koncepta koordinacije na razini sintagme i na razini riječi, tj. tvorenice (s najmanje dvjema tvorbenim osnovama). Raščlamba je u tom smislu obuhvatila istraživanje svih vrsta riječi, a upitni su se slučajevi popisali i opisali te sukladno tome znanstveno raščlanili.

**Ključne riječi:** pravopis, tvorba riječi, složenice, koordinacija, koordinacijski odnosi

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