Metaphors in Italian and Croatian compounds

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In this paper, the metaphorical NN and NA/AN compounds in the Italian and Croatian language are described using the contrastive method. A narrow semantic corpus analysis is performed using the generative lexical models, and the metaphorical meanings are shown in the framework of cognitive linguistics.

Key words: compounds, metaphor, metonymy, Italian language, Croatian language

0. Introduction

Compounding (composizione, slaganje) is a very productive word formation process in the contemporary Italian language, and it is becoming more common in the Croatian language as well.¹ The new compound in both examined languages is most often formed by combining stems of two words, but their way of joining differs. In the Italian language both words usually keep their stress and are written separately.² In Croatian, two words are usually connected by a linking vowel -e-, -o-, -i- (spojnik, interfiks, vocale di raccordo): dušebriznik, basnopisac, cjepidlaka. Compounds that maintain their own language autonomy usually reflect the morphosyntactic structure of nominal, adjectival and verbal groups (Noun, Adjective and Verb Phrases, sintagmi nominali, aggettivali, verbali) they derive from.

¹ At least in the journalistic functional style: pop-diva, cirkus-vjenčanje, skandal-dama, covid-redar etc.
² Babić defines this kind of compounds polusloženice ‘semi-compounds’ (1991: 43), as well as Barić et al (1997:297) along with the explanation that these are incomplete compounds. For more on this kind of classification of Croatian compounds see Babić (1991: 41-44) and Barić et al (1997: 296-299).
Morphosyntactic similarity does not always imply the semantic one, for example, the VN compound *taglia-spesa* has the compositional meaning “che taglia la spesa” ‘that cuts expenses’, while the meaning of *mangiapolpo* (V-N) “che opprime il popolo” ‘that oppresses the people’ cannot be derived from the meaning of its stem (cf. Peša Matracki 2012: 2013). In Croatian the VN compound *multivoda* does not denote a person who blurs the water, but a pettifogger or an intrigant.

From the theoretical point of view, we will consider lexical items as compounds if they meet the following criteria: 1. syntactic autonomy and indivisibility (atomicity of words, *atomicità sintattica*); do not allow the insertion of lexical items between the two stems and do not allow moving of the stems; 2. denote one item or a term; 3. have a fixed order of constituents; 4. can be exocentric. Therefore, two characteristics have a definitorial nature: i. formal binding, i.e. the inability of formal separation (*non-interrompibilità formale*); ii. semantic unity (*unicità semantica*; cf. Scalise 1994; Bisetto & Scalise 1999; Bisetto 2004; Peša Matracki 2012). As it is well-known, the lexical coding refers to the direct connecting of one term with one lexical form – that is how the words are formed. One (compound) term can be expressed with more words (*francobollo digitale*, *digitalna poštanska marka*). The cohesion of lexical structure can be determined by means of different tests: the separability test (*separabilnost*, *separabilità*: we cannot modify only one constituent of the compound); the dislocation test (*dislocazione*: we cannot change the word order in the compound). If the result of the tests is non-grammatical, the item is lexical and not morphosyntactical (cf. Voghera 2004: 57; Ježek 2005: 37). The tests have to show that a complex word behaves like a simple one. There are lexical structures which resemble syntagms but differ from them primarily in meaning – their meaning is often not of the compositional character (*luna di miele / medeni mjesec*; *signora di ferro / željezna dama*).

Based on the formal and semantic criteria compounds are classified as follows: 1. endocentric and exocentric, 2. coordinate, subordinate and attributive compounds; 3. phonologically univerbated or closed (joined) compounds and phonologically open (separated) compounds. In the Croatian language (see Babić 1991), as mentioned above (n. 2), the compounds are classified as the so-called pure compounds (*kućevlasnik*); synthetic compounds (*čudotvorac*); blends (*duhankesa*); semi-compounds (*spomen-ploča*); poetic semi-compounds (*uzor-****

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3 Obviously because of the metaphorical meanings that the compounds can acquire. Example from Croatian: *probisvijet* (vagrant).

4 These two conditions are also known as *condizione sull’elemento di discorso unico*, Eng. *single discourse element condition*, see Bisetto (2004: 33).

5 In the Italian linguistics, a language expression comprising more words is called *unità lessicali superiori*, *unità polirematiche*, *costruzioni lessicali*, *parole complesse* or *lessemi complessi* (*multi-word expressions*).

6 On classification of compounds see more in Bisetto & Scalise (2012).

7 This classification is mostly based on the formal criterion. Since in this paper we primarily deal with the meaning of compounds, we are not going to look back on the formal criteria in more detail, unless they are relevant to the semantic description.
Marković (2013) considers the term semi-compounds inappropriate, since it is based entirely on orthography. According to him, in Croatian there are compounds with or without the hyphen, but in both cases we are dealing with real compounds because they act as a single word and have one inflectional morpheme (rak-ranale, trač-partija/e). Furthermore, this linguist considers blending to be a special word formation process although the result is the same as with compounding (Očenaš).

According to the part of speech they belong to, the majority of compounds are nouns, and according to the productivity of combining stems, the most frequent combinations in Italian are N-N, N-A and V-N. The most productive compounding type in Croatian is also N-N. The same applies to the productivity of compound types with metaphorical meaning. For this reason we analyse Italian and Croatian N-N and N-A noun compounds in this paper. Hence, the characteristic of words to belong to a specific part of speech is inherent. That also distinguishes them from the similar syntagmatic constructions. We will present and discuss from the theoretical and empirical point of view the problem with describing the newly created words, on the level of expression, from two stems, and on the semantic level by means of metaphor and metonymy.

The main goal of the paper is to classify and define the compounds created by metaphorization in two analysed languages. Since the lexicon mostly reflects the non-linguistic reality, i.e. the development of one linguistic community, the semantic analysis of compounds contributes to the linguistic and semantic competence, in other words, the ability of lexical understanding and use of the figurative meaning of compounds. The paper is organized as follows: 1. introduction in which we delimit the subject of the paper; 2. theoretical framework for the description of word meanings in general and for the description of metaphorical meanings and metaphorization processes; 3. contrastive analysis of the NN and the NA/AN noun compounds in the Italian and Croatian language; 4. empirical analysis of the data from the corpus; 5. final results of the analysis.

1. Theoretical framework

When it comes to the general theoretical framework, our description is primarily based on generative grammar and is presented, to a great extent, in the book of Peša Matracki (2012). While analysing the semantic characteristics of compounds, we mainly referred to studies dealing with polysemy and

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8 We will use the following abbreviations: A = adjective, CL = cognitive linguistics, GG = generative grammar, H = head, N = noun, V = verb, PCs = prepositional compounds.

9 All words have phonological, morphological and semantic structure and represent a lexical type or class.

10 Also in other works regarding the word formation: Grossmann & Rainer (2004); Dardano (2009).
contextuality based on different theoretical approaches. Within the framework of generative grammar, Pustejovsky (1995) developed the Generative Lexicon model which enriches and complements the classical theory of compositional character of meaning. He describes the semantic relations between lexical items when mutually combined. Each word has its own basic meaning which is altered and extended in the context, depending on the additions, e.g. the verb *ammazzare* in the compound *ammazza-pianeta* means “destroy”; in *ammazza-fame* “relieve”; in *ammazza-polemiche* “stop”.

This lexical description model remains independent and separate from syntax, whereas it tends to depict the nature of polysemy, our lexical competence and knowledge of ambiguity. In this paper, we are interested in his approach to polysemy, since metaphorizations and metonymic processes are among the most important processes in extending the meaning of a single word. We use metonymy to extend the meaning of a word and metaphorization to create figurative meaning. However, the stability of meaning originating from such word formation processes depends on further lexicalization of words formed in this way.

Sense Enumeration is not an adequate way to describe the real nature of polysemy. In order to describe it properly, we should analyse all the aspects of word meaning and their compositional character. This especially refers to the complementary polysemy, (ibid. p. 38; It. *ambiguità complementare*). For that purpose, he introduces the notion of semanticality (It. *semanticità*) which, analogous to grammaticality, refers to observing the rules of meaning construal for words and phrases (*semantic well-formedness*) in a language. For example, in Croatian the verb of movement *kretati* (‘to move’) is often used in noun groups which do not refer to something that is movable: *Kreće sezona skijanja / nova školska godina / rasprodaja zimske odjeće*. In all these noun syntagms, semantically it would be more appropriate to use the verb *početi* (‘to start’) instead of *kretati*.

Classical lexical description model cannot explain the creativity of the use of words in new contexts. Just as the sentence construction is theoretically unlimited, lexical items can, similarly, in different contexts (linguistic and situational ones) assume theoretically unlimited number of meanings, e.g.

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11 The question of the type of relations that connect the thought, the non-linguistic reality and the language is present in all theories. We will present here only what is necessary for understanding the contrastive analysis of metaphorical compounds in two examined languages.

12 The meaning of a word can depend on several types of contexts: syntactic, semantic, linguistic, cultural and situational.

13 Dictionaries are designed to list the meanings of a word so that every word in dictionary has more meanings (multiple senses $s_1, ..., s_n$) related to it. This method can be used when describing metonymy, but not polysemy (ibid. p. 34).

14 Nouns referring to movement are more appropriate with the verb *kretati*: *Vlak se kreće, Dijete se kreće u školu.*

15 On the reasons why the classical sense enumeration method is inadequate for explaining semantic phenomena see more ibid. pp. 38-60.
Croatian compound *kruhoborac* “the one who spends his life struggling to earn bread, in a life struggle for sustenance, the one who barely makes ends meet” was used by Zoran Milanović (referring to a specific situation; the 2nd October 2020) meaning “fighter for else’s bread”. Along with the presentation of verbal polysemy which depends on the argument structure, Pustejovsky illustrates the ambiguity of adjectives that acquire different meanings depending on the noun they are modifying, e.g. Croatian adjective *zlatan*: *zlatne ruke* “able”, *zlatna mladež* “rich heirs”, *zlatna kosa* “blonde hair”, *zlatno pravilo* “that should be obeyed”; It. *contratto d’oro* “that is worth a lot”, *scapolo d’oro* “a rich, famous, unmarried man”, *riso d’oro* “of yellow colour”. The adjectives become incorporated in the meaning of the noun they modify. The similar applies to the meaning of nouns which are elements of noun compounds, for example *abito-gioello* denotes a dress covered in gems, whereas *città-gioello* is a metaphorical compound meaning “a beautiful city”. Restrictive role of adjective is significant for the formation of meaning of nouns since it reduces the polysemy of the noun.

Pustejovsky’s assumptions based on mutual relations of words (*relation-based theories; teoria basata sulle relazioni di una parola con altre*) rely primarily on generative and compositional aspects of lexical semantics, whereas primitives-based theories (Sense Enumerative Lexicons) rely on decomposition into a certain number of primitives. According to his researches, the generative lexicon is characterised by four levels of representation: argument structure, event structure, qualia structure, lexical inheritance structure. At these levels exist four principles according to which the construal of meaning of lexical items, when mutually combined, occurs: type coercion, selective binding, co-composition and semantic selection (ibid. pp. 105-131). According to our research, co-composition is rather useful for the analysis of noun compounds type \[V+N\] \[N/A\] (*gulikoža*, *mangiaspaghetti*), whereas the principle of selective binding, which explains the adjectival polysemy, is relevant for the noun compounds discussed in this paper. Another example of this principle is: *instant-kava* “fast”; *instant-stručnjak* “bad”; *instant-lov na vještice* “sloppy/failed”.

This linguist presents and analyses the relational character of lexical items primarily by means of the qualia structure: “the structured representation which gives the relational force of a lexical item, called the *qualia structure.*” (ibid. p.76). Qualia structure specifies four aspects of the meaning of the word: “i. constitutive (the relation between an object and its constituent parts); ii. formal (that which distinguishes it within a larger domain); iii. telic (its purpose and function); iv. agentive (factors involved in its origin). The qualia is the basis for the analysis of the semantic reconstruction and the change of the lexical type. In the analysis of the NN and the NA compounds, the most important qualia is the formal one.

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16 In Italian exists a group of words whose meaning depends on the word order: if it precedes the noun, it carries figurative meaning, and if it follows the noun then it has a literal one.

17 See more in ibid. pp. 61-83.

18 Thus extending and supplementing the classical compositionality.
The possible values that a formal qualia may assume are the following: orientation, magnitude, shape, dimensionality, colour and position, e.g. the compound *squalo tigre* = Qualia [**Formal** = Color]; *squalo elefante* = Qualia [**Formal** = Dimensionality].

Hence the Pustejovsky’s model of description can also be used for describing metonymic and metaphoric compounds, but in their research, one must take into account the contemporary theories developed within the framework of cognitive linguistics (CL) which deal with the conceptualization of the world by means of metaphorization. According to the CL, the speakers of a certain language possess imaginative abilities (metaphor, metonymy; conceptual blending) which help them shape meanings (symbolic relationships between expressive and content level).

Human cognitive activity is mainly metaphorical in nature, therefore the metaphor does not primarily have ornamental value but presents the basis for the conceptual compounding, i.e. it has an informative cognitive and denotative value. In language, conceptualization and coding of the non-linguistic reality, one individual culture and social movements is performed with the help of a semantic and a phonological structure paired into a symbolic structure (semantic, phonological and symbolic structures, see. Langacker 2008: 15).

An important term for the word formation is the Langacker’s term symbolic complexity. The morpheme is thus defined as a language item whose linguistic complexity is zero (ibid p. 16). The higher-level symbolic structures exhibiting greater or high symbolic complexity are created by combining simple symbolic structures, e.g. [[[luna]- [di]] - [miele]] (honeymoon, medeni mjesec).

According to the cognitive linguistics, even the structures composed of more words, with greater symbolic complexity, represent lexical items and are a part of a language’s lexicon. Lexicon is a set of conventionally fixed expressions in a certain language, and the grammar is determined by the semantic / conceptual structure it represents and incorporates. Therefore, the interaction between the three abovementioned basic linguistic structures is carried out through the conceptualization (and not through concepts) which implies the dynamity of the labelling and coding process of the non-linguistic reality (residing in processing activity).

Our understanding of the world is active, dynamic and constructive/creative by its nature. The main consequence of such assumptions is the idea that the

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19 In Croatian, the dimensions of the latter shark are expressed by a lexicalized adjectival metaphor *gorostasan: gorostasna psina*.

20 For more, see Langacker (2008: 27-54).

21 What is important for our paper is that this linguist does not involve only sounds to the phonological structure but also orthographic representations. The symbolic structure is hence bipolar: it consists of semantics and phonology.

22 In English there can be even a larger language unit: *Honeymoon Phase* (The honeymoon period is the sugar rush of new love). It is known that the symbolic structures in Germanic languages are extremely recursive.

23 For relation between the lexicon and the grammar see ibid. pp. 18-24.
linguistic meaning is nontransparent because it does not accurately reflect the reality, but rather it processes, i.e. conceptualizes it. Furthermore, that means that the cognitive concepts are unstable units, unlike the lexicalized concepts that are socially accepted and common to the speakers of the same language. Moreover, that refers to the imaginative activities and mental structures that occur also by means of metaphors: “A primary means of enhancing and even constructing our mental world is metaphor, where basic organizational features of one conceptual domain [...] are projected onto another. “(ibid.p. 36). Metaphor is one of the sources of blending because it selects and combines the features of two concepts in order to form the third (julović cvrčak “man who works a lot but without success”). The source domain that most often refers to physical objects and physical/sensory experience is metaphorically projected onto the target domain in order to enable understanding and communication of ideas and concepts.

According to the cognitivists, the metaphor is a creative cognitive mechanism which produces relations between the terms that never existed before. 24 It is one of the most vital and innovative processes in compounding, as well as in formation of new words and in their understanding. That is why it is important to analyse how these two mentioned domains are connected, which features of the source domain are described and match those in the target domain, e.g. Frankenstein in Italian and Croatian corpus most often denotes a monster; the features “man-made”, “monstrous”, “has destructive power” are being metaphorized in neologisms: Frankenstein-virus (Covid-19), cibo-Frankenstein (ogm/gmo-food).25 By analysing the features of the source domain, it is possible to identify some of its basic features in the target domain, therefore we can state that the virus and the food are conceptualized by the Frankenstein domain, to which, based on its main features, the new ones are continually being added.26 This is possible because the speakers, the speech community, widely shared that metaphorical structuring. Metaphorization is actually a rather complex process both for the formation of new words as well as for their interpretation because these connections and associations between the elements of the source domain and those of the target domain often (as we already noticed) depend on the innovativeness, creativity of the speakers that use this way of expression and word formation. Thereby cognitive concepts created by means of metaphors acquire idiosyncratic properties.

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24 On cognitive understanding of the metaphor, see more in Peša Matracki (2019).

25 This metaphor is also used in English to describe new, unknown and dangerous viruses: Is SARS-CoV-2 a new Frankenstein monster virus? In the Croatian compound dijete-čudovište created during the stage adaptation of the novel Frankenstein, the typical characteristics related to that word were broadened, e.g. [+ funny], [+ which arouses pity].

26 Immune system will easily recognize and neutralize the “different”, especially viruses – “Frankenstein’s”, something that is away from the “standard”. The “worse” the virus looks, the better. The problem is with the “similar”. In this context, Frankenstein means different/special.
We also share the following opinions of cognitive linguists regarding the metaphor: i. language tool present in all language varieties and functional styles; ii. constituent and an important part of the human thought; iii. conceptual characterisation of the source domain is fundamental for defining the target domain (shape, function, size, colour, behaviour, material etc.); iv. language innovativeness is theoretically unlimited because the human imaginative abilities and communication skills are inexhaustible (Lakoff & Johnson 1980).

As far as the classification of the metaphors is concerned, they are primarily divided into lexicalized or fossilized (dead) and the alive, new and productive ones. In the lexicalized, but often also in the new metaphorical compounds, the similarity and the referential closeness (metonymy) between the two conceptual domains are conventionalized, i.e. known to the entire speech community or in one functional style to the group of speakers that use it, e.g. all speakers understand the metaphor expressed by the Turkish loanword dželat used in this new context: On je dželat hrvatskog pravosuđa (= he ruined the Croatian judiciary). The expressiveness of the metaphor and its stylistic value is presented in this example. If we simply said that he ruined the Croatian judicial system, the sentence would surely not possess that kind of stylistic value, and even if we used the Croatian equivalent krivnik, the metaphor would still have a less expressive force.

When used with the intention of enriching a language, the metaphor can formally be expressed by a single word (alarm, bomba), a derivative (scivalone, lešinarenje), a compound (mangiabambini, lažitorba) and a phraseme (fare centro, u Adamovu kostimu). In compounds, metaphors can be based on a double association and a combination of two distant conceptual areas (pescecane sega = squalo sega). A fish species is here connected with a species of domestic animal, and subspecies of a sea fish with a tool; combining can go even further: squalo sega nasolungo (longnose sawshark, morski pas pilan dugog nosa). On the contrary, compounds belladonna (plant) and svekrvin jezik (plant) are integral metaphors based only on one metaphorical connection (that can be a rather complex one; a plant is conceptualized as lijepa žena, as svekrvin jezik (cf. Rainer 2004: 25). Due to that, they are less transparent than the ones in the complex metaphors whose Qualia structure is usually clear. The abovementioned examples are lexicalized lexical items, but we should also mention that among neologisms there are many

27 That implies that there are conceptual similarities and coherence (the mappings) between the source and the target domain.
28 For more on different classifications, see Casadei (1996).
29 In dictionaries, the metaphorical meaning of this word is “callous/heartless/brutal” (HER- Croatian Encyclopaedic Dictionary).
30 Because the Turkish loanwords are associated with the Ottoman conquest on our territory which was extremely brutal.
31 Therefore, the term pessecane sega nasolungo has a triple Formal Qualia based on similarity in three points of comparison.
32 The Italian term is Sansevieria trifasciata < San Severo + tre fascie; the qualia structure of this compound differs from the Croatian one.
integral metaphors that are not compounds: *sardine* (political movement), *žetončići* (renegades/outcasts from different political parties or corrupted politicians).

Cognitive theory is therefore very important for explaining and analysing the formation of new compounds since this is a regular word formation process in compounding, i.e. the semantic part of the neologism is often based on metaphor (*similarità, sličnosti, similarity*) and metonymy (*contiguità, bliskost, closeness*) which use the creation of new relations and associations among existing conceptual features. The ideas relevant for our work are those presented by the cognitive linguist Kövecses, especially those referring to the contextually-based interpretation of the metaphoric meaning. His main suggestion is that the metaphor should be analysed only in close dependence with the physical, social and mental context: “it is not possible to account for the emergence and use of metaphor without taking seriously the close dependence of the metaphorical mind on the surrounding physical, social and mental environment. Clearly, and unsurprisingly, the surrounding environment consists of the situational context and the linguistic context, or cotext” (2015: xi). The conceptual system, the context in which the conceptualization takes place, and the semantic interpretation and understanding are constantly interacting. Conceptualization is influenced by the context, it changes and develops accordingly, and its general characteristics are based on the universality of human knowledge and experience, while differences and variations are based on the cultural and individual specificities and differences (ibid. p. 49). The abovementioned Croatian example *dželat hrvatskog pravosuđa* and the Italian idiom *parlare arabo* “incomprehensible” have a cultural background. On the other hand, the neologisms *corona-histerija*, *corona-teror*, *corona-ludilo* are based on the experience of an entire international community, and are therefore universally comprehensible. When people metaphorically conceptualize one domain in a situation, they need to comply with two types of coherence: physical experience and local/global context in which this conceptualization takes place (pressure of coherence, ibid. p. 93). The more diversified the context, the more complex, innovative and unusual – we would say nontransparent (i.e. understandable only to a certain group of people) the metaphor. This means that the local or situational context is the most responsible for the metaphorical innovativeness and originality (creativity), while the global context reflects the general encyclopaedic knowledge and knowledge of the world shared by a language community (ibid. p. 97). In short, a specific context determines the linguistic creativity/innovativeness of the metaphor. There are two main types of this creativity: 1. the one based on the source domain; 2. the

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33 We will mention another occasionalism (nonce word) with *efendija* which can also be understood only in the narrow context: *Badel-efendija*. It would be interesting to examine the percentage of speakers who understand the meaning of this compound. According to our non-representative research (on 30 subjects), most speakers are not familiar with the meaning of this complex word.

34 Pustejovsky (1995) had similar views, only on a more general level, i.e. when speaking about the word meaning construal in general, and not only metaphorical.
one based on the target domain (ibid. p. 98). Source-related creativity can be of two kinds: 1. source-internal creativity and 2. source-external creativity. The first type is construed on the atypical features of a certain conceptual source domain in order to identify and comprehend the target domain (smrt je dobitak ‘death is gain’), the second sub-type of the relation is the one in which the target domain is conceptualized by brand new, additional meanings and features of the source domain (e.g. ljubav je zmija ‘love is a snake’).

3. Italian and Croatian NN and NA/AN compounds

By illustrating various assumptions in the introductory and in the theoretical part, we also reflected on the typological differences in the process of compound formation in the two examined languages. In this section we are going to present them with more detail and systematically by means of a contrastive analysis, bearing in mind their definitory properties. It is known that the formal and semantic differences in compounding in general and, accordingly in Italian and in Croatian, are primarily based on the differences between the prototypical (canonical) syntactic constructions in certain languages and between the combinations of two free forms within the same lexical structure. The difference between compounds and prototypical syntactic constructions arises from the independent formal and semantic properties of the lexical items the compound consists of (cf. Delfitto & Melloni 2009: 75-76; 2012: 154-156).

Preliminary researches showed several significant differences between the Italian and Croatian compounds, at a formal and a semantic level. The first important difference is the position of the head. The canonical position of the head in Italian is on the left, and in Croatian on the right (Left Head Rule / Right Head Rule: capo_reparto, basnopisac). In Italian, the head is separated from the other constituent of the compound, i.e. the compounds formed by using a linking element are rare in Italian (vocale di raccordo, Linking Element or Compound Marker: trag_i-commedia, cesar_o-papismo), whereas in Croatian such compounds

35 Classic example for this kind of metaphorical innovativeness is death is sleep metaphor (ibid. 98). This metaphor is present in verses of one of the most famous poems in the Croatian literature: Samo kosa tvoja još je bila živa, Pa mi reče: Miruj! U smrti se sniva. (A. G. Matoš Utjeha kose).
36 Petar Zoranić, Planine: Ljubav je zmija u travi.
37 Compounding is performed in accordance with the rules and ways of syntactic computation, but the result of compounding acquires special properties, different from those of the corresponding syntactic structures.
38 And our papers dealing with the word formation, cf. Peša Matracki (2012; 2019).
39 Germanic languages also follow the Right Head Rule (Eng. peach man; Ger. Pfirsichmann).
40 Here we are talking about shortened stems (tragedia-commedia, cesarismo-papismo). Compounds with a linking vowel are usually of Latin origin (terr-e-moto = movimento della terra ‘movement of the Earth’) or compounds with neoclassical elements (laring-o-faringite).
are common. In Croatian NN compounds without a linking element the head is usually the right constituent as well: cirkus-vjenčanje, skandal-dama, test-zona, razdjelnik-efendija. In other words, it is a wedding (that resembles a circus), a lady (who provokes scandals), a zone (used for testing of something), effendi (who managed the installing of the distributors). There are also examples of heads occupying the left position: čovjek-detonator (impact player/the one who causes the explosion of a good game), grad-brend (a city perceived as the best in X). In these examples we are dealing with appositional compounds. In Italian, in most cases the NN compounds cannot be expressed by means of the AN compounds or by derivatives, whereas this is often case in Croatian (pescecane = morski pas, pescespada = sabljarka, Internet banking = internetsko bankarstvo, prova regina = krninski dokaz). Inflectional morphology is applied to the head which is usually declined, e.g. capip_stazione, pescip_spada, although there are exceptions as well: pescipcanip/pescecanip. Those rare compounds with the linking vowel are characterised by the declension of the head (tragicommedie); in Croatian, in compounds with a linking vowel the inflected element is always the head, just as in the hyphenated compounds rak-rane_p cirkus-vjenčanja_p. Also, the head of the compound determines the gender: il capo_p stazione, il pesce_p spada. Formal differences are sometimes not semantically neutral, e.g. the nouns It. [[lupo]_N [mannaro]_A] and Cro. vu kodlak (Eng. werewolf) refer exclusively to an imaginary movie and literary character. The compounds uomo-lupo, čovjek-vuk (wolf-man) do not convey such a precise meaning; they can denote a man who devoted himself to these animals (more precisely, it refers to the German ethnologist W. Freund), or a man raised by wolves (Spain’s wolfman, M. R. Pantoja). The compound dječak-vuk refers to the boy raised by wolves (wild boy from Travnik).  

41 Simple apposition closely related to the proper noun (usually denotes a profession, function, social class: il signor Rossi / gospodin Rossi; il presidente Mattarella / predsjednik Milanović) in both languages precedes the noun, and a complex one follows the noun. In case of compounds that reflect the syntactic structure, compound constituents in the role of an apposition at the deep-structure level are extended or complex appositions: čovjek pauk (= person climbing without any kind of protective equipment, like a spider). Semantically, these are mostly complex unconventional appositions (dijete-čudovište) and therefore occur behind the noun.

42 Latinisms are exceptions, e.g. pesce zebra (Lat. danio rerio, Cro. zebrica, Eng. zebrafish) can also be expressed by means of an adjective, instead of a noun: danio zebratio.

43 In Croatian language this hyphen is called spojnica. It joins two constituents that denote one term, the first of which is not declined (Hrvatski pravopis 2013 ‘Croatian Orthography’ 2013).

44 The term divlje dijete ‘wild child’ is used in the Language for special or specific purposes (the various linguistic variants used in professional settings or professional discourse / professional communication) for “a child raised in wilderness with wild animals”. In Croatian, the term čovjek-vuk is most frequently used in relational coordinate complex expressions odnos čovjek-vuk. In English, werewolf refers to the mythical creature (lupo mannaro/vukodlak), whereas if the constituents are separated, as in the Wolf Man, it may also refer to the real man closely connected to the wolves: ‘Wolf Man’ Werner Freund plays with his pack of wolves (reuters.com). Here it is in quotation marks to
Another important, primarily formal, difference refers to the typological difference in expressing the case, which also reflects on the structure of compounds: in Italian, the case is not expressed morphologically or it is expressed by means of a preposition (preposizione segnacaso ‘preposition showing the declension cases’: \(d_{\text{Genitive}} \ a_{\text{Dative}} \ con_{\text{Instrumental}}\) : boom-costruzioni / investimenti; Cro. bum-stanogradnja\(_G\)/ investicija\(_G\) ‘construction/investments boom’). According to Bisetto (2004: 34), one of the most important criteria for distinguishing compounds from syntagms is exactly the absence of segnacaso prepositions in a compound and their necessary presence in syntagms, e.g. *fiera dei prodotti bio vs. fiera prodotti bio*. In Italian, all these compounds with a covert case remain invariable in syntactical constructions, i.e. the compound constituents are linked by a grammatical relation which is not overtly expressed and therefore the semantic relation can be nontransparent. On the contrary, the corresponding compounds in Croatian change cases depending on the syntax, meaning that the syntax is involved in the formation of compounds, which brings into question the status of this type of Croatian compounds: Cro. bum-stanogradnja\(_G\)/ investicija\(_G\). Similarly, when borrowing from English, unless we are talking about a pure calque, this grammatical relation can in Croatian be expressed by a case e.g. *taxi/truck driver = vozač taxija / kamiona*; and in Italian: conducente di taxi / camion or simply *taxista / camionista*.

In Italian, prepositional compounds appear quite often (PCs, phrasal/prepositional compounds: occhiali da sole, macchina a vapore, luna di miele, diritto d’autore); in Croatian they are usually expressed by the A-N structure (sunčane naočale, parni stroj, medeni mjesec, autorska prava). Also, in Croatian more frequently occur various forms of a semantically same metaphorical compound: program-crv, računalni crv, zloćudni softver or just crv. A certain number of compounds with the telic quale (expressing the purpose of the head) occur with an implicit preposition, e.g. forno (per) pane / pizza (Cro. krušna peć / peć za pizzu; Eng. bread / pizza oven). In the functional language style of commercials highlight the difference from the werewolf. In German, he is called the *Wolfsforscher* (‘wolf researcher’). In this context, we should mention one important and known fact: no severe semantic restrictions referring apply to this kind of word-formation relations in Germanic languages, therefore e.g. Wolf-Man can denote a man bitten by a wolf.

A case is an inherent relation between the head and the other parts of a syntagm, or in our example the other part of the compound (cf. Chomsky 1995; Peša Matracki 2017).

We will not further deal with this matter, we just wanted to point out the difficulties in determining the status of one type of compounds. For more on this subject, see Grossmann & Rainer (2004), Scalise & Bisetto (2012).

There is also a calque *taxi vozač*, but not a *kamion vozač*.

In Italian linguistics, as already stated, these are called *polirematiche* (cf. Grossmann & Rainer 2004; Dardano 2009).

Prepositional compounds do not have the properties of ordinary nominal phrases, but of real lexical items, e.g. they do not allow inserting of other lexical material: *not occhiali verdi/costose da sole*, but [occhiali da sole]. In Croatian corpus we did not find this compound with inserted lexical material either: *Sunčane dioptrijske naočale / dioptrijske sunčane naočale*. 
peć za pizzu is denoted as pizza peć (pizza peči\textsubscript{p}). The Italian language uses linear right recursion: forno pizza a legna (Eng. wood-fired pizza oven), forno pizza a legno portatile; whereas in Croatian the limited right recursion occurs: krušna peć na drva, but with placing the adjective to the left: prenosiva krušna peć na drva.\textsuperscript{50} There are also situations in Croatian when we express the phenomena/entities/concepts using the syntagmatic compounds, whereas in Italian these are expressed by means of the NN compounds, e.g. in Croatian a series of metaphorical phrases with a syntagmatic structure with the basis sjena, e.g. ministar/vladar/gazda iz sjene are expressed by a non-syntagmatic structure in Italian: ministro/governatore/padrone-ombra.\textsuperscript{51}

Based on the examples we processed (and we cannot mention all, due to the space limitation) it can be deduced, that light prepositions in both languages and case declension in Croatian can represent several kinds of the qualia structure. However, we can state that the Italian compounds expressed with the light preposition da, the Croatian with za or with an adjective have the telic qualia.\textsuperscript{52} When it comes to the metaphorical prepositional compounds, the most common one is the formal quale (luna di miele [Formal quale: physical property = sweet]).\textsuperscript{53}

A great number of endocentric and exocentric compounds with compositional, non-compositional, as well as figurative meaning are in both languages composed of an adjective and a noun: [A + N],/[N + A]. Given the syntactic function of an adjective, it is clear that it acts as a modifier in a compound as well.\textsuperscript{54} Italian and Croatian compounds with an adjective also differ in several significant determinants: 1. canonical order of constituents in Italian is N-A (vedova nera), while in Croatian it is A-N (crna udovica); 2. such compounds are usually separated in Italian (treno rapido); in Croatian these are univerbated by a linking vowel (brzovlak); 3. in Italian there are no morphophonological reasons for distinguishing the NA compounds from the NA syntagms, especially when we are dealing with the relational adjectives which do not allow modifications, not

\textsuperscript{50} Another example: Cro. okasti ključ, viličasto-okasti ključ; It.. chiave fissa a stella a cricchetto. In Croatian the left recursion is obviously preferred.

\textsuperscript{51} Despite using tests, it is very difficult to determine the status of Croatian syntagmatic lexical items. The ones with the prepositional phrase ‘iz sjene’ (‘from the shadow’) in the surface structure always appear without the inserted lexical material and always denote one entity, whereas for example, metaphorical prepositional phrases with the determinant ‘iz pakla’ ‘from hell’ which is also used in the series in journalistic-publicist style with obvious metaphorical meaning ‘horrible’: tulum/susjedi/svekrva iz pakla have the inserted lexical material; in Italian we also encountered a series with the same structural determinant: N-N: festa / villa / casa-inferno. More on metaphorical compounds with the determinant ‘sjena’ can be found in the 4th section of this paper.

\textsuperscript{52} In Italian da can also denote the Agentive quale (forbici da sarto = the scissors used by a tailor / krojačke škare.)

\textsuperscript{53} In metaphorical compounds other parts of Qualia structure can also be activated on the head-noun. As already mentioned several times, this depends on the context.

\textsuperscript{54} We already stated that compounding mostly reflects the syntactic functions of lexical categories.
even in syntagms (*gestione molto aziendale);\textsuperscript{55} precisely the univerbation is the main criteria for distinguishing such compounds from syntagms in Croatian; in Italian the AN compounds, univerbated (gentiluomo ≠ uomo gentile) or separated exocentric compounds (toga rossa) usually do not have a compositional meaning. In Croatian linguistics we did not encounter examples of separated compounds comprising an adjective i.e. their status remains undefined. Generally speaking, in these compounds, in our opinion, the most important are semantic and functional criteria. Such compounds undoubtedly denote one term, one object, one phenomenon or a living being (zigolo giallo, žuta strnadica),\textsuperscript{56} that is, they have, to a great extent, a denotative meaning. In both Italian and Croatian there is a large number of exocentric, mostly metonymic compounds of this type: casco blu / plava beretka, pellerossa / crvenokožac (synthetic formation), gilet gialli / žuti prsluci. In our opinion, the ambiguous character of the A-N / N-A sequence can be resolved primarily by means of the semantic criteria i.e. if it denotes one term, one entity and has a denotative meaning (it is a hyponym of the head element), it is a compound.\textsuperscript{57} In Italian, in defining this we can use inflection and gender markers such as articles, e.g. testa rasata is a syntagm in the sentence Avevano la testa rasata e le ampie facce slave erano fredde e insensibili, but a compound in: i testa rasata avevano colpito già tredici volte.\textsuperscript{58} In Croatian there is no such option of conversion by means of an article: inflectional morphemes must be present in both parts of a compound comprising an adjective (obrijane glave).\textsuperscript{59}

Based on the investigated criteria (orthography, presence/absence of a linking vowel, semantic compositionality or figurativeness), it is possible to differentiate the syntagmatic AN/NA structures from the lexical items of the same structure (a compound and a phraseme (polirematica)) in both languages. This also includes the analysis of a function an adjective can perform in a complex morphosyntactic

\textsuperscript{55} This problem in defining compounds with an adjective is present also in Croatian (*jako gradski promet).

\textsuperscript{56} Univerbation, as we have seen from the previous researches, influences the compound interpretation and its formal status, but often it does not, e.g. abovementioned example of a bird’s name in English is univerbated: yellowhammer.

\textsuperscript{57} We have seen that different languages have different rules for expressing the compound (phonological realization): some are written separately, some merged, some hyphenated, some are stressed on both constituents but denote the same thing, e.g. žloduh / spirito maligno, dobrosrećnik / uomo fortunato, brzotisak / stampa celere. The same orthographic differences appear in the same language, for example in Italian we encounter the same compound as univerbated, hyphenated and separated: pescecane / pesce cane; pescanoce / pesca noce. However, in the Italian language separated forms are preferred, while merged forms usually denote a lexicalised compound.

\textsuperscript{58} Un testa rasata in Italian is exclusively of masculine gender (=young violent and xenophobic skinheads). The example from Delfitto & Melloni (2009).

\textsuperscript{59} In Croatian, this metonymic compound is used in the form of a morphologically adapted loanword, and not a calque: Dvojica skinheadsça napali crnca u središtu Zagreba; obrijana glava in Croatian is not a compound with a metonymic meaning, but a syntagm (hence with a compositional meaning).
structure (restrictive i.e. denotative, relational, predicative). We will regard as compounds all the AN and NA structures which have a denotative and restrictive function, along with all those that convey a metaphorical or metonymic meaning. Restrictively denotative function is often expressed by a dual property of an adjective: a. to modify the noun meaning by extending its meaning and b. to specify the extended meaning of the noun at the same time, e.g. *nave spaziale / svemirski brod* (cf. Bisetto 2004: 44). Often by adding an adjective we determine the subclass of a certain kind of object: *kuća / pametna kuća, albergo spaziale (space/orbiting hotel, “hotel orbiting in space”).

To conclude, since compounds with an adjective are very similar to syntagms, in defining them we relied primarily on the semantic criteria (non-compositional meaning, degree of transparency i.e. semantic opacity), the formal criteria, which mostly manifest in lexical integrity and indivisibility of the compound constituents (*nave grande spaziale, *siva meka tvar, *plava široka beretka), as well as on the frequency and permanence of occurrence (spektakularno uhićenje).

4. Corpus analysis

We collected material for this paper from several dictionaries, press and national corpuses of the analysed languages. We used the data and the descriptions from the work of Peša Matracki (2019) as a base for the analysis of the Italian NN compounds. The examples for most of the NN and AN/NA compounds are taken from the Italian dictionaries DISC (Sabatini & Coletti (1997/2008) and Neologismi quotidiani (NQ, Adamo & Della Valle 2003). We verified the collected words in the digital corpus of the Italian written language CORIS/CODIS and the press available online. Croatian compounds were collected on the basis of the Italian ones, mostly from the radio, television and different newspapers. Except in different media, we investigated their use in different corpuses on the websites http://riznica.ihjj.hr/philologic and http://filip.ffzg.hr. For this paper, we mostly collected compounds with metaphorical meaning, that is, those whose at least one stem or a free form contains metaphorical meaning, as well as those based on the metonymy, while compounds with literal or extended meaning are listed only when used for describing the first ones.

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60 Word formation with an adjective is rather productive in European languages and therefore we believe that considering Croatian compounds exclusively as univerbated compounds is incorrect: *sveta vodica, acqua santa, holy water* are compounds in all three languages.

61 *Svemirski brod* ≠ a kind of floating vehicle navigating in space (but a flying object or a spacecraft); *siva tvar* ≠ grey coloured matter (but a brain tissue).

62 It should be mentioned that the data from NQ is also from the same sources.

63 Due to space limitation, but also to avoid the additional complexity of the paper, the examples excerpted from the mentioned corpora will not be accompanied by a source citation since in most cases the sources are digital and the analysed compounds are easily accessible and verifiable. Only two dictionaries from which we extracted the data
Work methodology and analysis comprise: 1. gathering of NN and AN/NA metaphorical compounds of serial type in Italian;\(^{64}\) 2. constructing the most general semantic paraphrase in both languages;\(^ {65}\) 3. conducting an empirical contrastive analysis of meaning of the metaphorical constituent or constituents (if both have metaphorical value); 4. searching for equivalents in case there are no equivalent compounds in the Croatian language; 5. determining the semantic function of compounds in both languages (denotative, informative, heuristic, stylistic expressive); 6. determining the Qualia Structure on which the metaphorization of compounds is based. In order to describe the development of metaphorical meanings, we took into consideration (when necessary) the lexicalized meanings listed in the dictionaries (DISC and HER, among others).

We will begin the analysis by presenting the noun compounds formed by two NN nouns (in alphabetical order).

4.1. NN compounds

One stem with metaphorical meaning is usually used to form a large number of compound words (*le serie compositive*) in Italian language. A rather productive one is the word *allarme*. We will compare it to the Croatian equivalent *alarm*:

(1) It. allarme-Covid-19/ozono/pensioni/prezzi/profughi/recessione
   “state of tension/agitation/ fear caused by X”
Cro. alarm (zbog) zagađenja/cijena/ovrha/ekstremista
   “tension/anxiety/warning/panic because of X”

We did not encounter a single valid NN metaphoric compound comprising the constituent *alarm* in the Croatian language. In both languages *alarm* metaphorizes a close/imminent danger or anxiety/fear of \(X\), but in Croatian the word is connected with different lexical items in noun phrases, i.e. morphosyntactically: *alarm zbog koronavirusa / opasog otpada / recesije*, etc. We found a compound in Croatian with the constituent element *alarm* in its basic non-metaphorical meaning, created by omitting the preposition *za*: *alarm za*
poplave → alarm poplave (= flood detector). We find metaphorical meanings similar to those in the Italian language in rare compounds with adjectival constituent: financijski/socijalni alarm (allarme-finanze/società). In both of these compounds, as well as in, for example allarme-Europa, the preposition per (za) is not expressed; therefore the meaning is fear of the danger for X and not of X. As we can see, the figurative meaning of both examples is the same, only the head has a different role. Compounds with this meaning can also be formed in the Croatian language: e.g. alarm-mirovine/srce although we couldn’t find evidence of their use. Based on the data form the corpus, the conceptual metaphor alarm often appears alone: Nema razloga za alarm; Onda je to već razlog za alarm (= anxiety / fear). Both in Croatian and Italian, regardless if in a compound or on any other language level, this constituent carries common associations without significant creativity, which are then metaphorized and, along with the stylistic and pragmatic, obtain informative heuristic value since they precisely express the level of fear and danger of or for X (“the highest level of anxiety”). The most important lexical feature which the metaphorization is based on is “danger because of X”, i.e., Agentive Quale [= Causal Chain].

(2) It. baby-carnevale/delinquente/cammello/pensione/spacciatore/spasimante”
“young/very young”
Cro. baby brat/Dinamo/garancija/kategorija/liga/mozak/pogodnosti/psiha/stroj
“very young/of child age”

In both analysed languages this constituent is mostly found in its original form, denoting a young age which is relative since it depends on the noun it closely determines. In Italian there is also a certain number of dual compounds with the native element: baby / bambino- lavoratore/operaiio/soldato.

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66 As already mentioned, the preposition za in Croatian represents the Telic Quale; another example alarm za potres means an earthquake detector and not fear of earthquake. That means that in Croatian we also have prepositional compounds that we use to name the subtypes of a more general kind of object, but they usually do not have metaphorical meaning. Hence, in case of a connection with the preposition za the Telic Quale is used (with the rare exception to the rule: alarm za stanje društva; vecernji.hr), while with preposition zbog Agentive Quale is used. Benefactive semantic role (= Dative) is also one type of possible connection and it is expressed by the preposition za or only by the case in Croatian: alarm vladajućima / za desnu struju MORH-a.

67 Qualia Structure of compounds with an adjective is not always clear; these two compounds mean “anxiety due to the financial / social situation”, but alkoholni alarm is a blood alcohol detector, and not an alarm over increase in alcohol consumption.

68 We found the equivalent meaning coded in a different way: alarm, manje mirovine

69 The encouragement to take action regarding that described by the second constituent is evident.

70 For example, if there is a young director, president or pensioner, it is obvious that baby metaphorizes “very young” when compared to the average age related to the mentioned category of people. Baby meaning “a very young child” in English affective informal speech denotes a “lover / spouse”.

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The similarity between the two languages is also manifested in the meaning determined by the second constituent of the compound. If the second element bears the feature [- animate], it is most likely a prepositional phrase: “for X” (baby centar / garancija / jana / pogodnosti / svijeća); here they usually have a basic meaning, e.g. baby svijeća “candle for the first birthday”. In neologisms baby banana/paprika/ stroj the metaphorization refers to dimensions (= smaller and lighter / mini) and is based on the similarity with one feature of the metaphorized noun. It is not always easy to understand which child characteristic the metaphor refers to: child is [+ very young / little / gentle / forgetful / playful], etc. For instance, baby mozak refers specifically to forgetfulness “amnesia during the pregnancy period”. Out of 42 Italian compounds containing this element, only 7 (16%) have the word bambino in the semantic paraphrase, whereas in Croatian about 1% (2 out of 25), none of which referring to an infant or a new-born, which is the basic meaning of this word. In the coordinate compound bambino-rimedio/medicina the left element denotes an unborn baby “embryo created by IVF in order to use it for curing the genetic disorders”. Italian compounds with the head [+ animate / animal] belong to a semantic subclass that can be expressed by a paraphrase “fabrics made from the young specimens of X” (baby alpaca /cammello). Compounds with baby in both languages have mostly stylistic expressive, and often denotative (baby model / stroj / pakiranje / svijeća / mozak / psiha / čuperak / gmo) and informative heuristic function (baby-boss/Operaio/robot). Some compounds contain a rather complex metaphorization (source-internal creativity), e.g. baby blues “Postpartum depression and psychosis” which is based on two types of Qualia Structure: i. Agentive Qualia [= Causal Chain, Natural Kind]; ii. Formal Qualia [=Shape / Frame]; it denotes a depression caused by giving birth (blues is a music genre of slow rhythm often associated with melancholic mood). Hence, there are several associative relations belonging to multiple Qualia Structures involved in the process of creating a new meaning. The main Qualia for nouns with the feature [+ inanimate] is the Formal [= Dimensionality], for compounds denoting different employees/workers of young or very young age the Agentive [= Creator/Agent] and, finally, the Telic Quale for compounds with a paraphrase containing the preposition za.

(3) It. acquisto/debutto/fusioni/incentivi/telefonini/utile-boom
“big rise/increase of X” // “sensational/extraordinary/spectacular X”

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71 However, the literal meaning relating to age in this kind of examples can also be broadened and extended, e.g. baby pogodnosti refers to children up to three years of age, baby jana is meant for children in general.

72 Certainly, this type of compounds exists and they primarily have a denotative function and are more present in Languages for special or specific purposes.

73 Most of the Italian and Croatian lexical items with this constituent are calques (baby brain).

74 It is used here in its extended meaning (denoting any form in which something appears).

75 In Croatian, there is a humorous metaphor based on this characteristic: Plenkovićevi ministrianti, thus called because of the young age of his ministers (vecernji.hr).
Cro. bum beba/generacija/investicija/izvoz/nezaposlenosti/proizvod/redatelj “big increase of X” // “sensational /spectacular X”

The Italian examples show that this word is phonologically non-adapted, while in Croatian it is phonologically adapted. It is very productive in both languages. Regarding the meaning, boom in most compounds in both languages keeps its own common metaphorical meaning arising from the basic meaning of “the sound of a strong explosion”. Associations further lead to three extended conventional meanings: “ascent/sudden rise of X” (fusioni, poduzetništvo, stanogradnja),76 “jump of X” (crescita, utile, izvoz), “universal acclaim/sensation” (acquisto,77 debutto). In Croatian, the metaphor of similar meaning is expressed by using the base poplava “a great number of” which in compounds with the genitive case (formally on the border of morphosyntax and word formation) acquires the dynamic component that is missing in the conventional metaphorical meaning; poplava petica / ideja / celebrityja, etc. Another difference when compared to Croatian: compounds with this element are frequently expressed by the adjectival stem (AN): internetski / potrošački koncertni / nautički / tehnološki bum. The conventionality and the repetitiveness of meaning of this noun diminish its stylistic expressive power, but the informative heuristic remains (“big/sensational/sudden increase of X”). It is obvious that the metaphorization is performed on the basis of the Formal Quale [= Magnitude].

(4) It. appartamento/coalizione/misure/partito/riforma/sistema operativo-bonsai “of reduced size” // “that was subject to reduction in size/quantity/value”
Cro. bonsai (bonsaj)- mačke/demagog/općina/stranka/pluralizam/posuda/zakon “undersized / miniature / insignificant”

In addition to the conventional figurative meaning “small” (Steffi è stata sconfitta da Amanda Coetzer, tennista bonsai; oktennis.it),78 another similar meaning “which does not grow/develop fast enough” occurred in both languages. The second element of the compound bonsai posuda has also a metaphorical meaning: [...] jer demokratska i jaka Rusija ne može izrasti u bonsai posudama Putinova režima (autonomija.info); C'è il rischio che anche il Pd diventi un partito-bonsai (NQ). This is an obvious connotation of the semantic prime ‘small’ which extends to the term ‘insignificant’. It usually does not define a precise measurement or a

76 Most common in economy, hence in positive terms, whereas “jump” also means a rapid increase, but can lack positive connotations, in fact it often carries negative ones (price). A very important semantic component in creating semantic connections between the source domain and the target domain is a time determinant “very quickly”.

77 Most often refers to a transfer of a football player.

78 With nouns [+ human], it refers to physical characteristics, to height precisely (in this case 155 cm). But that is not always clear, e.g. in the compound bonsai demagog it could refer to the physical characteristics of that demagogue or the reach of his demagogoy. More precise meanings can often be deduced only from the context (in this case the meaning refers to the scope and range of his demagogoy).
development level but merely refers to something being smaller than normal or developing at a slower pace than normal. In the compound bonsai-zakon the metaphorical constituent has a dynamic meaning “reducing one big problem/area to unbelievably small frameworks”; bonsai konfederacija “stronger regionalization / decentralization” (the determinant bonsai refers to Croatia).

The compounding element bonsai can in both languages potentially create long compositional series, and it has expressive, informative heuristic and sometimes denotative function (gatti-bonsai, bonsai mačka, pas). It is evident that the main Qualia Structure relevant for the creation of meaning of these compounds is the Formal Quale [= Dimensionality].

(5) It. aula/banca/casa/operazione/reparto/ufficio/villa-bunker
   “place that is hard to reach” // “passive defensive behaviour”
Cro. banana/garsonijera/grad/igra/škola/utakmica/vila-bunker
   “place resembling a fort, shelter’ // ‘extremely defensive behaviour”

There are compositional series with this constituent in the Italian and Croatian language. Two definitory features of the term bunker, which are specified in dictionaries, occur in neologisms and are morphosyntactically metaphorized: “defensive” and “inaccessible”: Palazzo Chigi è diventato un bunker in cui i sindacati non riescono a mettere piede (ansa.it). The meaning can be extended to describe a defensive attitude or behaviour: Hanno fatto del loro silenzio un bunker. However, the more precise interpretation of the meaning of these nouns depends on the context, e.g. banana-bunker “protective case for bananas”; utakmica bunker “highly defensive playing tactic in football”, grad bunker “a town cut off from the world”, etc. The semantic relationship between two parts of a compound are thus the Formal Qualia [= Shape] and the Telic Quale [= Function]. In the prepositional compound, bunker della fame (bunker gladi) it has a denotative role of a “narrow vertical cell of the Nazi concentration camp” (without water or food). Only the Formal Quale is used for creating the basic meaning here, but with an opposed Telic quale because it is not used for defensive but for attacking purposes (killing people). It has a stylistic expressive, informative heuristic and denotative value.

(6) It. arresto/comunicazione/incontro/libro/proposta/racconto-choc
   “that causes or arouses great surprise and sensation”
Cro. šok-akcija/dezinfekcija/dijeta/ispovijest/pitanje/strategija/taktika/terapija
   “that causes/arouses strong reactions/sensations/surprise”

This constituent is more productive in Italian because the NN word formation type is in general more productive in Italian than in Croatian. Metaphorization in

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79 However, unpredictable interpretations due to the source-external cases of creativity are always possible: bonsai zmaj in one particular example stands for a chicken (…svi znaju da su kokoši nastale od dinosaurusa, zato je kokoš bonsai zmaj; slobodnadalmacija.hr). Here we are entering the area of special functional styles such as satire, word play, antiphraisis, etc.

80 This metaphor is used with sports games, especially football.

81 In this context, it refers to the town of Osijek during the Homeland War.

82 As well as the majority of others.
these compounds extends to a number of semantic fields, e.g. it is used in economics and political economics (šok terapija, šok strategija). These lexical items metaphorize one of the important definitory characteristics of the noun šok: disorder and destabilization. In the compound šok-dezinfekcija/dijeta the speed of reaction to an action causing the shock is being metaphorized, that is instantaneous / suddenness. However, most of the compounds containing this element in the Italian language express strong emotions and situations with emphasis on emotional effect. Adjectival forms are also common in Croatian: naftni/ekonomski/kulturalni/toplinski/tečajni šok, etc. Sometimes the formal aspect leads to semantic differences, hence the compounds with adjective cannot always be transformed into the NN compounds without the change in meaning, e.g. šok-terapija means an instrument of a “therapy based on shocking actions” (mostly also with a metaphorical meaning), and terapijski šok means “shock caused by therapy”. It is evident that this metaphor, as well, is based on a similarity with the source domain and has the stylistic expressive and informative heuristic value, seldom a denotative one. Therefore, it has an elative, superlative value describing something that caused the reaction with maximum psychological effect. The most significant Qualia Structure involved in the formation of this compound is obviously the Agentive Quale [= Causal Chain].

(7) It. corona/Covid-concorso/eroe/idiota/incubo/terrore/isteria/vita/Pasqua

“in times of X” // “due to X”

Cro. korona/ Covid-histerija/idiot/kava/ludilo/saga/supersila/teror

“in times of X” // ”due to X”

In both languages, compounds with the Covid and Corona elements seemingly have a rather transparent meaning on a global level, including the metaphorical ones, e.g. Covid-isteria / histerija metaphorizes most of the definitory, that is, conventional features of the source domain [+ emotional instability / uncontrollability / mythomania / anxiety]. In terms of relations, this is obviously a causal relation (incubo-corona). Nonetheless, due to the direct interaction of the non-linguistic events and the linguistic coding (because of the missing time component), the interpretation often depends on the context and the sender of the message. For instance, the meaning of compound Covid-idiota/idiot (kovidiot) depends on the sender’s views: Tisuće Covid-idiota slave u Berlinu kao drugi val: bez maski, bez razmaka (jutarnji.hr; the sender advocates the strict measures in fighting the virus). On the contrary, those who do not believe everything the official sources release and doubt the efficiency of the strict measures address these believers as Covid-idioti.

83 In this case a close relation between the language, especially the lexicon and the non-linguistic reality is manifested. This relation is characterized by mutual interaction. The efficiency and vitality of new lexical items depend on the creativity of individuals and the society, and their adaptation to the reality they describe. One important characteristic of the neologisms created under extraordinary circumstances, as the ones occurring due to the COVID-19 outbreak, is the lexical instability in interpretation and form, e.g. novo normalno or novogovor (no one exactly knows what these terms actually mean and what are their semantic determinants).
Beside the listed general meanings, some compounds can have additional meanings because the relationships and associations between the determinant and the determinatum (determined element) in some compounds can be interpreted in various ways, e.g. *korona kafić* “coffee shop that is open during the Corona pandemic/ in times of Corona works with respecting the safety measures”; similar compound *korona party* has the opposite meaning “a party during which the safety measures are not being complied with”; *korona-avion* “a flight during which a larger number of passengers got infected”, “an airplane in which all safety measures are being followed”, but also “an airplane used to transport COVID positive persons”; *korona-vjenčanje* can mean “a wedding in times of Corona” and “a wedding ceremony at which many people got infected”; *hotel-Covid* “a hotel providing accommodation to persons in self-isolation” and “a hotel in which a large number of persons got infected”, etc.

However, apart from the two abovementioned meanings (in paraphrases), further meanings of the *Covid* or *Corona* determinant emerged: i. “place/event where the coronavirus spreads” (*Korona-regija/grad*); ii. “public place where the protective measures are being complied with” (*Covid-pizzeria, Covid-bar*); iii. “tools/means for fighting the Corona” (*koronaobveznice/kredit/koridor/zakon*); iv. “explanations and facts about the Corona” (*korona mapa/statistika/bećarac*); v. “new characteristics of social phenomena in times of Corona” (*korona-demokracija/idelogija*). The Qualia Structure present in creating and explaining these compounds are: the Agentive Quale [= Causal Chain], the Constitutive Quale [= Time] and the Telic Quale [= Function / Purpose]. In the compound *Covid-teror*, the determinant plays the role of an instrument, i.e. it means that this phenomenon is used to terrorize people and deprive them of freedom.

The metaphorical name of the strategy for fighting the Coronavirus is interesting: *čekić i ples* (Pueyo, The Hammer and The Dance) where the hammer stands for “attacking/hammering the virus” and the dance refers to “co-living with the virus in a more favourable epidemiological situation”.

(8) It. *finanziere/governo/ministro/portafoglio/sindaco/società-ombra*

“who behaves in a secret way/who conspires or schemes in the shadows”

Cro. *čovjek/gazda/mentor/redatelj/strateg/vladar/profesionalci iz sjene*

“who operates in secret/ who actually governs/ rules”

In Italian dictionaries this noun has about twelve extended and figurative meanings. In compounds, the feature [+ obscure; unclear ] is most frequently metaphorized. When found outside of the compounds, the integral metaphor

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84 Accordingly: *Covid-pizza, Covid-kava*.

85 In other words, the strategy foresees that in case of a new Coronavirus outbreak we should apply quarantine, as a hammer for attacking the virus, and when the situation improves, we continue dancing (living) with the virus, using masks and complying with other epidemiologic measures.

86 Also, it has to be pointed out that in times of Corona, very vital in both languages are the integral metaphors associated with the war rhetoric (*metafore belliche*), e.g. *neprijatelj* (Covid-19), *rat, bitka, prva linija, antikorona-bojovnici* itd.
often refers to a negative notion, a reflection of something adverse: *Il suicidio di due industriali getta un’ombra sui metodi investigativi anti-corruzione* (corriere.it); *Amerikanci o takvim incidentima ne govore baš rado, jer oni u biti bacaju sjenu na savršenu izvježbanost pilota i besprijekornu dotjeranost svih tipova vrlo skupog naoružanja* (jutarnji.hr). In the Croatian corpus, the metaphorization on a morphosyntactic level of “not perceiving / emphasising the real role of the X” is quite common: Iako podjednako uspješan, posljednjih pet-šest godina živi u sjeni svoga kolege s velikim reketom, Gorana Ivaniševića (vecernji.hr).

As we can see notice, this semantic and formal relationship is in Croatian expressed by a prepositional syntagm (from the shadow) that more precisely determines the meaning of the corresponding lexical form (the one stated in general paraphrases). Since there are no prepositions, it is harder to interpret the meaning in Italian, e.g. *padre-ombra* denotes a father who is not involved in his children’s life. In the language of politics/social and economic relations the usual meaning is the “real/actual X”. In some countries (including Italy) there are institutions called this way: *Il governo-ombra si distingueva da quest’ultimo per la presenza di un ministero-ombra della Comunicazione*. The compound *cavaliere-ombra* (in economics) “who acts in the shadow without exposing himself in an undisguised manner” can, depending on the context, play a positive and a negative role. Although possessing a strong metaphorical potential, this determinant did not develop any new and different metaphorical meanings other than the lexicalized ones in the modern languages we are analysing. It has a stylistic expressive, informative heuristic and denotative value. The Formal Quale [= Form] plays the most important role in the construal of metaphorical meaning here as well.

(9) It. auto/contratto/impresa/merce/messaggio/performance-pirata

“that breaches a law/prohibition/obligation”

Cro. piratski(a)/igrica/materijal/program/proizvod/proizvođač/softver/stranka

“that is not legal”

The examples show that from the basic semantic features of the word *pirat* in most compounds in both languages the feature “illegal” is being metaphorized (unauthorized distribution of X / copyright infringement). We did not find a single example of the NN compound in the Croatian data sources, but only the NN groups: *videoteka pirata*Gen, štandovi pirataGen. Although in most cases the meaning of this metaphor is clear, there are also compounds whose precise meaning can be determined only from the context, e.g. *performance-pirata* (Non c’è mai un cartellone ufficiale, ma gli annunci dei suoi spettacoli viaggiano attraverso il tam-tam metropolitan; ilgiornale.it), or *Piratska stranka*. The name of the political party denotes

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87 One of the meanings of this semantic paraphrase is analogous to the meaning of the phraseme *živjeti u sjeni X-a*.

88 There are several NN compounds in Croatian with a denotative value: *muzej sjena, kazalište sjena, teatar sjena*.

89 Copyright and patent infringement.
opposition to intellectual property, i.e. advocating free exchange of knowledge, discoveries, etc. Hence the word *pirat* extended its meaning and acquired positive connotations, becoming a synonym for the fight against multinational companies, but the meaning has not yet entered the dictionaries of neologisms. The extending of meaning often leads to nontransparent interpretations, e.g. the neologism *piratska skrb*: the relationship between these two words is unclear: care of the pirates or pirates providing some kind of a care.\(^9^0\) Primarily it has an informative heuristic, and rarely a denotative function. Metaphorical meanings are mostly based on the Constitutive Quale \(=\) Social Behaviour.

\[^{10}\text{It. dimostrazione/inchiesta/lezione/mostra/processo/ricerca/sfilata/serrata-}
\[^{90}\text{This compound can also be interpreted based on the context and encyclopaedic knowledge: Pirate Care is a transnational research project and a network of activists, scholars and practitioners who stand against the criminalization of solidarity \& for a common care infrastructure (fight against the criminalization of solidarity). Therefore, this compound, as well, assumes positive connotations, which means it belongs to the Source-external creativity or the Context-Induced Creativity.}
\[^{91}\text{In the corpus, no other lexical material was inserted to any of the AN formations in Croatian.}

spettacolo
“that creates sensation/arouses great interest”

Cro. dobrotvorni/nogometni/politički/sudbeni/teniski/viteški spektakl
“taking place publicly in a glamorous way”

The formal difference between the two languages that can be immediately spotted is that the metaphorical meaning of the word *spettacolo* /*spektakl* is expressed by the NN formations in Italian, and AN formations in Croatian.\(^9^1\) This compound constituent also creates compositional series in the Italian language, while in Croatian it can be found only on the semantically metaphorical, but not on the formal level. Namely, all metaphorical meanings occurring in both languages are expressed in Croatian by the Adjective + Noun type (*spektakularno uhićenje/privodenje/otvorenje/kampanja/turneja/reforma/spoznaja etc.*) or morphosyntactically: *spektakl na suđenju; hapšenje kao spektakl*. In both languages the metaphorical meanings of the word *spettacolo* are layered: we have stated the most general meaning in the abovementioned paraphrase, besides which the most common are the following: i. “which adopts the communication style of a show”; ii. “sensational”; iii. “sensationalistic”; iv. “phenomenon / fact / affair / event of great interest”; v. “publicly announced with great clamour”. In Croatian, in compounds comprising the noun *spektakl* accompanied by an adjective that closely determines it, the level of metaphoricity depends on the meaning of the adjective, e.g. in the compounds *operni/glazbeni spektakl* it actually denotes the basic meaning of that word which is “staged performance addressed to an audience”. Significant characteristics of a theatrical performance or an entertainment show in terms of a spectacle are a large number of performers, special effects and high costs. This is where the predictable metaphorical meanings containing the following semantic features originate from: [+ extraordinary / interesting / unusual / magnificent /
attractive]. If the compound contains the adjective *spektakularan*, it takes on the abovementioned extended metaphorical meanings.

In both languages the meaning “glamorous show for the public” served as a basis for another metaphorical meaning “empty / lacking deeper significance and meaning”. That is the reason why in the Croatian corpus it is often accompanied by the adjective *puki* (‘mere’) (*puki sudbeni/politički spektakl*). In Italian such connotations are expressed by the compounds with the following heads: *scienza/giustizia/processo*. The feature [+ large number of participants] is not always included in the target domain, e.g. *spektakl u režiji Blanke Vlašić*. According to the analysis, it obviously possesses stylistic expressive (enhanced) and informative heuristic value since it represents a high level of public interest, and often the sole nature of a certain public event. It is also evident that the base for the metaphorization is the Formal Quale (= Form).

(11) It. *uomo-bambino/bandiera/bomba/campionato/cavallo/fotocopia/macchina/ombra/pesce/elefante*
   “man who shares a certain characteristic with the X”

Cro. *čovjek-drvo/majmun/pauk/riba/slon/stroj/tiger*
   “man who shares a certain characteristic with the X”

The determinatum *uomo* is very productive in forming metaphorical compounds in the Italian language, and also potentially quite productive in Croatian. The meanings of these metonymic and metaphoric compounds are very nuanced and polyvalent. Therefore, we divided them into several subgroups: a. “similar to X”; b. “that behaves like X”; c. “that represents X”.

Similarity by itself is a very general term and comprises physical and all other characteristics of the determinant. Nevertheless, it mostly refers to the physical characteristics (*uomo albero / drvo // elefante // slon // tigre / tigar*). An important group of compounds includes compounds referring to the similarities in behaviour, motion, sensory abilities, e.g. *uomo-bambino* “who behaves like a child”; *uomo-pesce* (*čovjek-riba*) is an athlete who swims like a fish (or can hold breath under water for a long time); *uomo-topo* is a terrorist “who uses the sewerage network for carrying out terrorist actions”; *uomo-cavallo* “resilient and fast like a...”

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92 We shall illustrate this meaning by citing a sentence from the corpus: all the way to the “desubstantiation” of politics or politics without politics, i.e. the politics transformed into a pure spectacle, show or a political masquerade and in its sole emptiness a pure scandal (B. Beck, vecernji.hr). This component became almost fixed in the contemporary language, so that if it is not referring to a particular context, this is usually explicitly stated: “*veliki politički spektakl*” (a large number of high-ranking politicians from many countries of significant interest to the international public); “*Ali to nije bio samo spektakl*”.

93 Found with this element (spiderman, batman) or with a different position of the head as with woman *catwoman* (*žena mačka*) they often represent calques taken from the English language. Potentially means that this formation type can be used to create a large number of compounds, but the already created ones are not as numerous as in Italian.

94 We found a compound in Croatian with a different position of the head constituent *riba-čovjek* (carp with a human face).
horse”, etc. The following metonymic compounds belong to a separate group: *uomo-bandiera bomba / campionato; čovjek stranka/momčad*. Important compounds are also those with the thematic role of the agent (determinatum), while the determinant indicates the instrument (*uomo-macchina*), field of activity (*uomo mercato / comunicazione*). The Italian compound *uomo-fotocopia* has a denotative function of “a cloned man”. However, the more precise interpretation of the meaning of these compounds also depends on the context, e.g. *čovjek-majmun* is an ape stunt. It is known that in the Germanic languages the productivity of this type of compounds has no significant semantic restrictions (cf. Delfitto & Melloni 2012). They have a descriptive, informative heuristic and denotative value. The compound type containing the constituent *man* is very productive and, in most cases unpredictable, which means that its interpretation often depends on the real discourse, i.e. it conveys context-induced metaphorical meanings (*source-internal creativity*). According to the afore-mentioned, the Formal Quale [= Forma / Shape] is of the utmost importance here, whereas the Agentive Quale [= Creator] is also present.

The serial formation of metaphorical compounds is more productive in Italian than in Croatian. We will here mention in particular the series based on a single basic feature of the metaphorical constituent of the compound with the attributive role: *canaglia “very bad/dishonest” (uomo-canaglia; nitkov “very bad”); chiave “fundamental” (ministro chiave; ključ “crucial”); fiume “very long” (lettera fiume; rijeka “very long”); lampo “very short” (nomina-lampo; bljesak “very fast”); lumaca “very slow” (giustizia lumaca; puž “very slow”), condiminio (alleanza condominio; suvlasištvo “quarrelsome”), etc.* In all these compounds the metaphor has a superlative/elative meaning. Due to that, the equivalents for such compounds in Croatian are the adjectival syntagms containing the modifier *veoma “very”*. Naturally, such equivalents lose their stylistic expressive power, and often lack the enhanced component characteristic of the corresponding Italian compounds, e.g. *lumaca* next to certain nouns takes on the meaning of “which causes bitterness”. In this paper we distinguish these compounds from the similar appositional compounds that are also used in the role of the attribute, but are more complex and paraphrased by a relative clause, e.g. *bavaglio* (defending the freedom of speech); *ponte* (serving as a transition phase); *lager* (characterised by extremely bad hygienic conditions and poor nutrition); *coltelli* (being in conflict relations).

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95 But depending on the context, can acquire various abovementioned meanings.
96 In order to better perceive the meaning of the compound we also present the context: [...] dovevano emergere la psicologia femminile del rapporto amoroso (in specie del rapporto con l’uomo-canaglia, il fuorilegge), il privato dei grandi criminali, la loro quotidianità (psicanalista. info).
97 In these examples the modifier always has a figurative role, and the grammatical morpheme (plural) is on the modified element.
98 Italian linguistics does not make a distinction, but our analysis shows that this difference is important for their classification.
It is also important to mention the role of the NN compounds in the Italian language with primarily a denotative role, which are usually not of a serial nature, such as e.g., pianeta nano, paese canaglia (patuljasti planet or planet patuljak, rogue state/ korumpirana država). A similar role in Croatian has the compound stonoga-koalicija, since it denotes a sub-type of the head constituent: “coalition composed of one big party and many small or very small parties” (or kupus-koalicija).

As a conclusion, we shall propose the following classification of the NN type of metaphorical compounds: i. endocentric subordinate metaphorical compounds based on the Qualia Structure of the determinant / modifier (alarm, boom, baby etc); ii. simple subordinate appositional - attributive endocentric compounds based on the main inherent characteristic of the determinant (chiave, fiume, lumaca); iii. complex subordinate appositional endocentric compounds based on multiple associative relations (mostly expressed by a relative clause: bavaglio, ponte, taxi).

4.2. NA/AN compounds

As already stated, general semantic features of adjectives and their function (descriptive and restrictive) have a significant role in delimiting these compounds. Once again, the primary purpose of the restrictive function (denotative or referential) is naming the objects, phenomena, living beings, actions and events: risparmio etico, materia grigia, divlja ruža. Metaphor and metonymy also play an important role in this naming process. Accordingly, we classify compounds with adjectives as metaphoric endocentric (dolce morte, albergo intelligente) and metonymic exocentric (colletto blu, camcia verde).

We are familiar with the fact that the syntactically unmarked adjective is post-nominal in the Italian language. It is found in this position also when it has a denotative role in a compound, which means that it defines a subtype of a specific type of object, phenomenon or living being. Very often it has the same position and function in metaphorical compounds as well (albergo intelligente denotes one subtype of a hotel). Such compounds are also quite common in Croatian, e.g. duboka država (It. poteri forti), pametna kuća / knjiga / telefon. These meanings should be distinguished from those expressed by a prenominal adjective preceding the noun without a figurative meaning, e.g. in a univerbated compound mezzala ≠ un’ala dimezzata, it does not carry compositional meaning (half wing) but stands for “a player situated between the wing player and the centre forward” (wing midfielder); the compound giusto processo does not denote a fair legal process but the judiciary reform: “the reform of the judicial procedural system with the goal of ensuring the impartiality during processes”; the abovementioned dolce morte refers to euthanasia. In Croatian the position of adjective does not play that

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99 In diplomatic circles these states are referred to as the rogue states.
100 In Italian literature, these compounds are classified as coordinate appositional compounds (see Bisetto 2004: 37).
101 Here the adjective has the metaphorical meaning “equipped with the most advanced technologies”.

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important semantic role in creating basic nor metaphorical meanings, although the post-nominal position indicates the denotative role (plavac mali, muškat žuti/ poluslatki, pinot sivi).

Since the AN/NA compounding type is very productive in both languages, we will mainly analyse, as in the previous part, the compositional series. They are usually composed of a noun and an adjective denoting a colour which, depending on the noun, takes on different metaphorical meanings. The most productive types are those with adjectives bianco (bijel ‘white’), blu (plav ‘blu’), grigio (siv ‘grey’), nero (crn ‘black’), rosso (crven ‘red’), verde (zelen ‘green’).

(1) It. balena/casco/cavaliere/colletto/lista/tuta/vacanza bianca
Cro. bijela/kuga/legenda/zastava/tvar/vrana

White colour does not indicate one general meaning. It is known that this colour in many languages obtains numerous figurative meanings, such as “light – coloured” (vino bianco), “pure white/clean” (veste bianca, foglio bianco); “immaculate/of moral integrity” (cavaliere bianco); “indicating emptiness” (armi bianche); “cocaine” (morti bianche, caused by drugs); “conservative/moderate political forces” (balena bianca); “that is related to the snow” (vacanza bianca). Metonymical compounds usually denote part of the body, clothing item’s part or type of white colour: casco bianco (white helmet) “volunteer on peace missions”; tuta bianca (white overalls) “who opposes the globalization by wearing a white overall on protests”; bijeli ovratnici (white collars) “workers who do not perform manual labour”. The compound balena bianca (bijeli kit) is a complex metaphor with dual association: balena is associated with the Formal Quale [= Dimensionality] and bianca with the Agentive Quale [= Natural Kind]. In the compound cavaliere bianco “an investor who intervenes and helps companies that are subject to a hostile takeover”, white colour also has the metaphorical meaning of “performing a good deed”. If we determined the meaning on the basis of the semantic primitives good–bad, the majority of metaphorical meanings would be found on the positive axis (good).

102 There is also a series with the pink colour, but it is not interesting for this paper since it usually refers to the feature [+ female]: lobby rosa “pressure group composed of women” (women’s lobby); quota rosa (women’s quota) “provision that determines the percentage of women’s participation in politics”, etc.

103 This meaning appears in noun pairs in which the second part is of darker colour.

104 Which in turn acquire different metaphorical meanings related to the basic one, e.g. veste bianca symbolizes moral purity. This is where that vitality and the dynamicity of the metaphorical conceptualizations of the outside world are reflected. The following is an illustration with a white leaf: Il foglio bianco, […] ognuno di noi ha provato almeno una volta un certo sgomento di fronte al foglio bianco. Il foglio vergine ci seduce e ci invita come un campo di neve intatta che aspetta le nostre orme o la traccia dei nostri sci (CORIS/CODIS: Mon2001).

105 Alluding to its political weight and mastodonic party apparatus and the white background of their logo/ party symbol.
Most metaphorical meanings are the same as in Croatian, such as “opposed to something of the same kind, but darker” (fish, meat, wine, grape). In our language (similarly, but to a greater extent than in Italian) numerous lexicalized metaphorical compounds are based precisely on the white colour of the modified compound constituent or its constituent element: *bijeli cvijet* (disease characterised by a white discharge), *bijeli sport* (= tennis, white attire), *bijela nedjelja* (white garment of the newly baptised)\(^{106}\), *bijela knjiga* (usually with white covers)\(^{107}\), *Bijela kuća* (white facade). A smaller number of compounds is based on the comparison of whiteness with light: *bijele noći*, *bijela svjetlost* (= morning light).\(^{108}\)

From the following examples, it can be observed how interpretation of these compounds depends on the tradition and the social and cultural context: *bijela vrana* in Italian is *mosca bianca*; *bijela kuga* in Croatian signifies that the death rate exceeds the birth rate, whereas the same compound *peste bianca* in Italian stands for tuberculosis.\(^{109}\)

In contemporary languages, same as other compounds with adjectives, it mostly indicates the denotative function (*gasolio bianco*, *bijela goriva*), and the meaning is construed based on the principle referred to by Pustejovsky (1995: 127-131) as the selective binding (*legamento selettivo*), that is, the adjective interpretation depends on the meaning of the noun it modifies. We would like to add that it can also depend on the particular social or cultural context.

\[(2) \text{ It. asse/blocco/bollino/fascia/lingua/luna/posto blu} \]
\[\text{ Cro. plave kacige/kartica/koverta/magistrala/riba/zastava}\]

Blue colour does not convey lexicalized metaphorical meanings in neither of the two analysed languages, but forms only a few lexicalized metonymical compounds: *casco blu* / *plava kaciga*', *sangue blu* / *plava krv*', *colletti blu* / *radnik*, *morbo blu* (cyanosis / blue skin colour), *plava riba* (pesce azzurro/grasso), *bandiera blu/plava zastava*, *plava koverta* (bustarella). This colour does not possess significant metaphorical potential since its new meanings are construed based on the colour *per se*, and not on the development of mental images and associations connected to the blue colour.

However, in the contemporary Italian language, certain different symbolic meanings associated mainly with the regulation of social and urban life appeared: *area blu* (marked by a blue line) “reserved only for brief stopping of private vehicles for residents”; *asse blu* “urban road with increased traffic where it is forbidden to stop”; *fascia blu* “urban zone intended for private traffic”; *bollino blu* “a sign of quality”.

\(^{106}\) *Domenica bianca* in Italian usually stands for a Sunday spent on snow.
\(^{107}\) For example, the title of one of Šuvar’s books *Bijela knjiga* (White Book) is exclusively based on the colour of its covers, since the contents are more grey-black than white.
\(^{108}\) The latter one is more often expressed by the derivative *bijelina*.
\(^{109}\) Compounds with the same meaning are those found internationally or calques from other languages, e.g. *bijeli ovratnici*, *bijela krvna zrnca*, *bijeli tjedan* etc.
A new semantic field whose conceptualization involves colours is the one that codes different kinds of social groups, among which is also blocco blue “a group of fierce anti-globalization protestors”.\textsuperscript{110}

Another significant colour in the Italian language, similar to blue, is azure. It is well-known that this colour symbolizes the national sports teams: Gli Azzurri (football players), Valanga azzurra (ski team). Neologisms with this colour placed before nouns signifying a human being denote moderation, e.g. toga azzurra “a member of the judicial order of moderate political views”.

All the compounds familiar to us in Croatian are based on blue colour of the noun to which the adjective is connected: plava ko(u)verta, plava kartica (European health insurance card), plava magistrata (seaway and transport), plava kaciga (UN soldier), plava zona (all activities and facilities related to the sea), etc. According to the data from the corpus, blue colour in the Croatian language is also on the morphosyntactic level mostly associated with the sea.

In both analysed languages the compounds with blue colour usually have denotative and informative heuristic value. The meanings in this case are also construed on the basis of the selective binding principle, and with regards to describing these compounds by means of semantic primitives, we can state that, although it could be placed on the positive axis, such a description does not possess any significant explicative power.

(3) It. lavoro/letteratura/materia/mercato grigio/a  
Cro. siva ekonomija/eminencija/piraterija/tvar/zona

In both languages the lexicalized figurative meaning “that conveys a sense of monotony / boring sadness” (impersonal, lifeless) often appears in syntagms, on a morphosyntactic level (siva naselja / život / una giornata grigia),\textsuperscript{111} while the meaning “unofficial / partially irregular / uncontrolled by the competent authorities / outside/beyond the clearly defined legal framework” (lavoro, mercato, zona, ekonomija, piraterija, trgovina) is present in the compounds. Grey is a colour between the two basic colours white and black, that is why it metaphorizes phenomena which are neither entirely negative (black) nor clean (white)\textsuperscript{112} or completely legal, e.g. piracy is grey if a work of authorship is used without any compensation, and it is black when “the sound carriers are burned”. Hence, its meaning cannot be uniquely determined nor with relation to the semantic primitives. Grey colour has the feature [+ unclear] which is further metaphorized in different directions depending on the noun it determines, therefore the general meaning of the compounds in a socioeconomic semantic field can be paraphrased as “not belonging to a clearly determined/defined space or process”. There is another

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\textsuperscript{110} The name of this group is also based on a colour. It is about the idea of a social fight deriving from scouts (wearing a blue colour).

\textsuperscript{111} A few more examples from the corpus: La sua vita è grigia. Non se la gode; La realtà è grigia, anzi nera.

\textsuperscript{112} Here is a description of democracy with the help of these colours: Ma se si vuole vivere in democrazia, bisogna rendersi conto di quello che si può fare o non si può fare in democrazia. La democrazia non è nè bianca nè nera: la democrazia è grigia (CORIS-1980).
important lexicalized meaning in Italian that cannot be found in Croatian: “that conveys a feeling of difficulty”, however it is not present in compounds: è grigia = va male / ci sono difficoltà (‘it’s grey = it’s going bad / there are problems) (especially referring to financial problems). The denotative function of this adjective is significant in Croatian, e.g. siva ekonomija / mrena / pčela. In the last example, the colour conveys a literal meaning. Usually in compounds with colours, all nuances of the metaphorical meanings are mainly derived from the physical characteristics of these colours or objects of those colours, e.g. it is known that the common noun siva eminencija comes from French (éminence grise) and refers to a person who secretly and unofficially governs through another person. Nevertheless, it is less known that the adjective “grey” in this metaphorical compound comes from the grey colour of the habit worn by a monk who inspired the coining of this term.¹¹³ This colour serves as a base for more layers of metaphorizations in comparison with the previous one, precisely because of its vagueness and obscurity.

(4) It. blocco/cavaliere/lavoro/leggenda/lunedì/settimana/toga/tuta venerdì nero
Cro. crni dim/čarter/čovjek/film/fond/labud/vikend/petak/legenda/niz/rekord

Just as we metaphorically place the white colour on the positive axis (good), black colour is prototypically placed on the negative axis (bad) by our societies and cultures. This is the reason why they occur as opposed symbol/metaphor of crno-bijeli svijet (dichotomous thought: vedere il mondo in bianco e nero).¹¹⁴

The following semantic pairs are based on the dichotomy of these two colours and their extended meanings: acqua / cavaliere¹¹⁵ / fumata / lista / pane / parte / vino bianco ~ nero. In both languages the number of lexicalised conventional figurative meanings associated with this colour is significant. We are going to specify only those that are the most relevant for our analysis: “that has a dark colour” (vino); “dirty/filthy” (colletto); “related to grief” (fascia); “reactionary” (governo); “evil/perverse” (anima); “full of pain/misfortune/sadness” (cuore); “illegal/criminal” (traffico)¹¹⁶. Therefore, they are exclusively associated with the semantic primitive bad conveying metaphorical meaning: “dark/heavy/unpleasant” (dani); “evil/bad” (ćovjek,¹¹⁸ vijesti);¹¹⁹ “disreputable/dishonest” (lista). A significant number

¹¹³ As opposed to his contemporary de Richelieu known as the Red Eminence (on account of his red cardinal’s robes).
¹¹⁴ More examples of this division: Splitting the thought in white and black: bianco ~ nero, giusto ~ sbagliato, buono ~ cattivo, intelligente ~ stupido, forte ~ debole, pulito ~ sporco.
¹¹⁵ In the vocabulary of economics (as opposed to bijeli kavalir) it means: ‘in economics the investor who tries to perform a hostile takeover of a company, in international politics the one who promotes aggressive politics’ (one who performs a hostile takeover of X)
¹¹⁶ This refers to the parts of the Guelph party.
¹¹⁷ As we stated in the theoretical part, more precise interpretations depend on the specific culture of the nation the speakers belong to, e.g. canicia nera is in Italy associated with the Italian fascism, whereas the metonymic compound with referential meaning referred to il Duce, and later extended to his supporters.
¹¹⁸ We found this compound in the national corpus.
¹¹⁹ It obviously refers to the news content; negative news.
of metonymic compounds is based on colour: *fumata nera* (black smoke); *crna škola* (seminary); *camicie nere* (black shirts). However, the basis for the metaphorization of the compound with this adjective is not always clear, for example, the nickname Crna kraljica ‘Black Queen’ (Barbara Celjska) can be interpreted in different ways, therefore determining the correct meaning requires encyclopaedic knowledge (she always wore black clothes). There are numerous denotative compounds in both languages (lexicalised and nonlexicalised): *crna marica / kutija / magija / roman / fond / orhideja*, etc.

The well-known compound *crni labud* (Black swan) could be categorised as source-internal creativity, since the sense of surprise inherent to the discovery of the black swan is extended to an unpredictable negative event, not only in the field of finances and management.

We did not encounter a single compound formed by metaphorization of this colour with a positive content, whereas metaphorization of white colour results in an output with negative content, as the one expressed by a paraphrase “indication/sign of emptiness/absence” (*bijela kuga / udovica*). 

In both languages all such metaphors are rather productive and vital even today, although we can state that the most common ones refer to the vocabulary of economics (*cavaliere, lavoro, mercato, fondo, lista, toto*). Also, with the nouns in the role of determinants of time, mostly denoting the days of the week, black colour usually depicts a great or catastrophic stock market crash (*crni ponedjeljak* “Dow Jones fell 23%”).

Compounds with this colour can be opposed to other colours which are on the ‘positive-negative’ axis (good~bad) positioned on the positive side, e.g. *rosa* ‘pink’:

(5) It. *fascia/giudice/linea/pista/toga/tonaca/zona rosso/a*  
Cro. *crvena ideologija/tjeralica/Hrvatska/furija/oaza/tepih/župnik*  

This colour also has a significant number of lexicalised metaphorical meanings: “danger” (*linea rossa*); “ban” (*zona rossa*); “left-wing political orientation/ideology” (*toga rossa, crveni sudac*); “conflict situation” (*telefono rosso*); “erotic/pornographic” (*film a luci rosse*). In the contemporary Croatian language, it mainly refers to the left ideology: *crveni knjižica / župnik / Hrvatska / sudac / političar/ oaza*, etc. Compounding with a proper noun enhances its function (rather to extremely left-oriented): *crveni grad, crvena Kata*.

Metonymic compounds in this case as well are mostly based on the red colour of a physical object: *camicie rosse* (Garibaldini; *crvene košulje*; *bandiera rossa / crvena zvijezda* “communist/socialist revolution” (a flag can also be used as a signal for danger).
The compound *zona rossa* can serve to illustrate to what extent the interpretation depends on the particular context. In the consciousness of Italian speakers before the occurrence of the coronavirus, this compound referred to Genoa and the anti-globalization demonstrations during the G8 summit (2001), when the Red Zone was the part of the town to which entry was forbidden, whereas during the coronavirus pandemic it is an area that cannot be abandoned. Back then, as well as today, it is marked by red colour, since the end-result is the same.

By using this colour, we can also form opposite pairs, e.g. *linea gialla ~ linea rossa*: a line delimiting the safe zone as opposed to the line delimiting the zone of endangered safety.

When it comes to the positioning on the good~bad axis, metaphorical meanings of this colour do not fit this frame and cannot be described by using that criterion.\(^{125}\)

Primarily it has informative heuristic, but also denotative and stylistic expressive value.

(6) It. camicia/fascia /fondo/guerriero/hotel/numero/polmone verde

    Cro. zeleni ambasador/forum/pluća/pojas/ugovor/val

The most relevant lexicalised metaphorical meanings in both languages are the following: “unripe” (*pomodoro*); “youthful” (*anni verdi*); “predominantly verdant territory” (*regione verde*); “referring to the agriculture”\(^{126}\) (*piano verde*); “for environmental protection” (*fondo verde*); “political movement and culture inspired by the ecological issues and fight for environmental protection” (*partito verde*). Integral metaphor in the sentence *È un verde* denotes a member of Lega Nord (= camicia verde ‘green shirt’). In the consciousness of speakers, the green colour is usually associated with positive values (good), such as: youth, fertility, peace, safety, stability, vitality.\(^{127}\)

Combined with certain nouns it can acquire various meanings, e.g. *onda verde* is a radio programme providing information on the road conditions to drivers,\(^{128}\) *numero verde* (green telephone) is a help and information phone line. Either way, figurative meanings of colours within one semantic field (for example in politics and society) are to a great extent transparent, e.g. when the head denotes a certain city zone, the determinant *zelen* (green) refers to the car-traffic ban.

The use of metaphorical and metonymic compounds which have synonym forms is very important for the linguistic expression on the text level, where it

\(^{124}\) *Crvena knjižica* refers to the book of quotations from Mao Tse-Tung (The Little Red Book) as well as to the membership in the Communist Party of Yugoslavia.

\(^{125}\) Due to its stratification and ambiguity which date back to ancient times. We will not deal with this any further since it surpasses the frames of this paper.

\(^{126}\) This broadening of meaning can range to fields rather distant to the literal meaning: e.g. *lira verde* (language of economics) “the fixed price of agricultural products”.

\(^{127}\) We could state that these associations have a degree of psychological reality.

\(^{128}\) Obviously, such interpretation can be associated with the meaning of the green traffic light.
bears the cohesive and anaphoric role: Le strade incrociate di oro e dollaro. Il biglietto verde paga la gestione del Covid, ma è presto per i requiem.

To conclude: in the examined contemporary languages very often occur new words formed from nouns that are modified by an adjective denoting colour \((N + A_{\text{COLOUR}})\). They are categorised as (1) attributive exocentric compounds: a. \(N_{\text{BODY PART OR A PHYSICAL FEATURE}}\) (brain, heart, tongue, skin, etc.); b. \(N_{\text{PART OR TYPE OF CLOTHING ITEM}}\) (collar, shirt, cassock, waistcoat, etc.); (2) attributive endocentric compounds: \(N_{\text{LITERAL MEANING}} + A_{\text{COLOUR METAPHORISING ONE FEATURE OF THE HEAD}}\). There are also compositional series in which one noun (the head element) is modified by different colours, and that is how certain abstractions of reality relevant for the functioning of the speaker’s community are coded (telefono azzurro / rosa / rosso / verde; zona arancione / blu / gialla / rossa / verde). In such series, colours retain their main metaphorical meanings, however they become conventional and precisely defined. Beside their restrictive, denotative meanings, exocentric metonymic and endocentric metaphoric compounds also have stylistic and expressive function.

5. Conclusion

The most active associative mechanism in the NN compounding process is based on the similarity (that in form resembles X; that marks the presence of X; that refers to a characteristic of X), i.e. it is based on the Formal Qualia Structure. However, as seen from the analysis, the Agentive Qualia Structure should not be underestimated, especially the one pertaining to the causal relation. With regard to the Constitutive Qualia, for determining the metaphorical meaning it is important to identify a hypernym of the determinant/modifier and its inherent features. This implies that the semantic relations between the constituents in Italian, as well as in Croatian, are limited (unlike those in the English language). In performing the analysis of the AN/NA compounds we mostly relied on the Pustejovský’s Selective binding principle, given the fact that the basic and metaphorical meanings of adjectives depend on the noun they modify.

Cognitive description model enables us to analyse the associative relationships between the two parts of the compound as motivated instead of arbitrary, and to define, i.e. closely determine the relationship between the figurative and the basic meaning, e.g. the figurative meaning of the compound cavaliere nero depends on one of the basic conventional figurative meanings of the adjective black which is “to be mean/evil” without which the mental image (immagine mentale), i.e. the connection with the conceptual metaphor would not exist. The same principle governs the more complex metaphorization in the compound crni labud [+ improbability / suddenness]. As we already stated, the problems with the interpretation often arise from the versatility of the motivation itself.\(^{129}\)

\(^{129}\) We will mention another representative example: pink colour is usually associated with women, while in Italian cycling, the term maglia rosa denotes a male person “who is on top of the leaderboard”, because the sports newspapers that cover the cycling news are pink (Gazzetta dello Sport).
Compounding is a creative and productive process, as well as the comprehension and interpretation of compounds, since they require a higher degree of elaboration and encyclopaedic knowledge than dealing with the literal meaning. We also established that an essential component for understanding the new compounds is the knowledge of the context since the metaphorical compounding has proven to be associated with the context-induced creativity. The purpose of the metaphor in compounds is not only to describe given analogies, but to create new ones that expand our perspective, conceptual organization and coding of the non-linguistic reality (distanza sociale, lavoro agile, fuoco amico). What’s more, in the process of compound formation the source-internal creativity is more productive than the source-external creativity which, on the other hand, is more involved in the special functional styles. The analysis confirms the assumption about metaphor being a fundamental characteristic of linguistic construal of semantically layered and complex nuances and connotations: it is used for denoting a certain phenomenon, an object or a person by means of a particular feature which presents these entities in a new light, encouraging us to perceive and interpret them from a new perspective; in other words, the metaphor possesses enormous cognitive potential: one compound constituent with a figurative meaning structures and conceptualizes the other compound constituent. Furthermore, metaphors show significant pragmatic value, since they are used to more concisely and flexibly express something that would, otherwise, using ordinary language require longer, more complex and less efficient expressions (e.g. macchina del fango, penna polemica, tsunami ovrha). Dynamicity, liveliness, conciseness of this type of metaphorical word formation are important instruments of speaker’s interaction in the society and the world around him.

Metaphor and metonymy represent the most vital and innovative processes in the formation of the NN and the AN/NA compounds, not only as means of enriching the Italian and the Croatian lexicon but also as an expressive and stylistic means, as well as a device for linking of the linguistic expressions on the textual level, namely for the textual cohesion.

The most significant theoretical problems we encountered during our analysis concerned the possibilities for a more precise determination and distinction of the basic, literal and the metaphorical meaning, whereas within the metaphorical meaning it is not always easy to define whether we are dealing with the source-internal or the source-external creativity. Likewise, it can be difficult to identify the metaphorical potential of a particular stem since it considerably depends on the non-linguistic reality and the way it evolves.

Finally, we shall sum up the main differences regarding this word formation process between the two analysed languages.

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130 Not only the meaning but also the existence of an underlying formal connection in the form of a compound or a syntagm can depend on the context: e.g. listopadsko iznenadenje in Croatian is a syntagm of compositional meaning, while in American English it is a compound (October surprise).
Italian vs. Croatian: 1. Head position (Left / Right); 2. Linking elements (No / Yes); 3. Light prepositions (No / Yes); 4. Recursion (very limited / very limited); 5. NN / NA productivity (high / medium).

6. References


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Grossmann, Maria; Rainer, Franz (ed.), 2004. _La formazione delle parole in italiano_, Tübingen, Niemeyer.


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131 We already acknowledged that prepositional compounds appear in Italian as well, but here we refer to the fact that in Italian language the NN formation without a preposition is more productive, while in Croatian it often has to be expressed by means of a preposition or by the case declension of one constituent.

132 But limited. It is present in the genitive compounds on the border of morphosyntax.

7. Corpora

**Italian language:**

CORIS/CODIS = Corpus digitale: Corpora.ficlit.unibo.it: Corpus CORIS/CODIS (annotated version 2017): Corpus di Riferimento dell’italiano Scritto / Corpus Dinamico dell’Italiano Scritto.\(^{133}\)

- 2004. Grande dizionario della lingua italiana, Supplemento, Torino, UTET.


anza.it
corriere.it
ilgiornale.it
repubblica.it

**Croatian language:**

HER = Hrvatski enciklopedijski rječnik (ed. Ranko Matasović).
http://riznica.ihjj.hr/philologic\(^{134}\)
http://filip.ffzg.hr.\(^{135}\)

jutarnji.hr
slobodnadalmacija.hr
vecernji.hr

\(^{133}\) CORIS/CODIS includes several subcorpora: a. daily and periodical press (daily newspapers, weekly, biweekly, monthly magazines, as well as magazines published every several months); b. various fiction texts (novels, tales, short stories); academic prose (collected papers, books, reviews, discussions); d. legal and administrative prose (books, reviews, documents, laws); e. miscellanea (collections of writings, books, reviews, documents); f. ephemera (letters, instructions, booklets, brochures, pamphlets).

\(^{134}\) *Hrvatska jezična riznica* (Croatian Language Repository) corpus was compiled by the *Institute of Croatian Language and Linguistics*. It is assembled from selected texts in the Croatian language, covering all special fields and functional domains or styles. It includes written literature and other written sources from the period of the beginning of the final shaping of the standard Croatian language norm. Besides non-fiction, scientific publications, school books, online daily, weekly and monthly press, it also includes translated literature.

\(^{135}\) *Hrvatski nacionalni korpus* (HNK: The Croatian National Corpus) is a reference corpus of the contemporary Croatian language by the *Institute of Linguistics of the Faculty of Humanities and Social Sciences* (Zagreb). This is a balanced corpus modelled after the British National Corpus (for more see Tadić, 1998).
Metafore u talijanskim i hrvatskim složenicama

U ovome se radu analiziraju metaforičke složenice u talijanskom i hrvatskom jeziku tvorene od dviju imenica i pridjeva i imenice. Za teorijsku podlogu usko semantičkog istraživanja odabran je generativni leksički model (Pustejovsky 1995), a metaforička značenja složenica opisana su u okviru kognitivne teorije (Langacker 2008, Kövecses 2015). Nakon što se pobliže razmotre odabrane teorije na primjerima iz korpusa, analiziraju se složenice ekscerpirane iz talijanskih i hrvatskih nacionalnih korpusa, iz digitalnih medija te iz više rječnika.

Sakupljene metaforičke imeničke složenice serijskog tipa (polazeći od talijanskog) prvo se klasificiraju, a zatim se kontrastivno analiziraju značenja metaforičkog konstituenta ili konstituenata. Važan dio analize sastoji se u određivanju semantičke funkcije složenica u oba jezika (denotativna, informativno-heuristična, stilsko-ekspresivna) te 6. određivanju Qualia strukture na kojima se zasniva metaforizacija složenica. Da bismo odredili razvoj metaforičkih značenja, uzimali smo u obzir (kada je to bilo potrebno) leksikalizirana značenja zabilježena u rječnicima (među ostalima DISC i HER).

Ključne riječi: složenice, metafora, metonimija, talijanski jezik, hrvatski jezik