

Morphosemantic features of the third verb type (*jeti* verbs) in Croatian

Tomislava Bošnjak Botica
*Institute of Croatian Language and
Linguistics, Zagreb, Croatia*
tbošnjak@ihjj.hr

Ivana Oraić Rabušić
*Institute of Croatian Language and
Linguistics, Zagreb, Croatia*
ioraic@ihjj.hr

1. Introduction

Croatian verbs are categorized into conjugational classes and/or types. Recent works have shown a range of 3–4 verb classes and/or 6–10 different verb types. The starting point for most categorizations is phonological shape and changes in thematic suffix from the infinitive to the present or vice versa; however some other parameters (like changes to the stem) also play a role.

When presenting Croatian verb morphology in scholarly literature, the focus is almost always entirely on form. The morphological shape of a verb is not seen as being related to its meaning – that is, no categorial meaning is attributed to morphological types.

Some recent works – Bošnjak Botica (2011), Jelaska and Bošnjak Botica (2012)¹ – view conjugational verb typology in Croatian as a prototypically organized category (Rosch 1978, Lakoff 1987). The notion of prototype can be defined as a subcategory that is most representative of the category as a whole, as a central subcategory (Langacker (1987: 371), Lakoff (1987: 39ff), Nessel (2000: 109)). According to this definition, a category typically consists of a nucleus of central or prototypical members, which are characterized by the possession of a list of salient attributes, and various more or less non-central or peripheral members, which owe their membership in the category to the fact that they share some (but not all) of the salient attributes of the prototypical members (e.g. Galton (1995: 122), Raffaelli and Kerovec (2008: 146)).

In line with the tenets of cognitive linguistics, which state that grammatical categories, even phonological ones, have structural meaning (e.g. Bybee and Slobin (1982), Taylor (1995; 2008), Jelaska and Gulešić-Machata (2005)), Jelaska and Bošnjak Botica analysed phonological differences in conjugation, defining forms in relation to morphological differences and differences in verb meaning assignable to the types as categories. As shown for Russian in Nessel (2000), prototypicality may also be applied to verb-class hierarchy. Based on established criteria (the most salient properties) for Croatian, Bošnjak Botica and Jelaska consider one verb type to be a prototype of the conjugational category, while the others are at varying distances from the prototype. Conjugational types are represented as fuzzy sets containing concepts, and the properties of each concept contribute to their representativeness within the category. Each class (*Cr. skupina, grupa*) is a category organized around a phonological form (the thematic vowel in the present tense) that has one or more subcategories, e. g. verb types (*Cr. vrsta*) depending on their infinitive form, where both the thematic vowel and the preceding consonant or suffixes play a role. Each type is also viewed as a category, organized into verb subtypes (*Cr. razredi*), which display different degrees of membership.

Verbs are hierarchically organized into classes, types and subtypes following the same or similar principles. Classification based on the most salient properties enables the selection of verbs with a higher or lower degree of prototypical meaning within one verb type. Prototype

¹ Presentation at the *Slavic Cognitive Linguistic Conference*, Zagreb 2012.

theories have not been directly applied to conjugational classification in other Slavic languages,² but some other aspects have been studied on the basis of the idea of the prototypicality of the Russian verb class hierarchy, Nessel (2000).

This paper will attempt to demonstrate which morphosemantic relations (Raffaelli and Kerovec, 2008) can be established within the third verb type (*jeti* verbs)³, or more specifically, which verb meanings can be realized using the pattern **-je-+ti (+se)** in Croatian. We argue that the third verb type is hierarchically organized around its prototypical meaning TO BECOME or TO BE.⁴

2. Morphological features of the third verb type

Table (1) presents the most recent classification of Croatian verb classes and types according to Jelaska (2005), Bošnjak Botica (2011, 2013). The basic principle is the similarity or dissimilarity of the thematic vowel (suffix)⁵ in the present (marked with a capital letter). Regardless of the differences in classification and approaches to some conjugational issues, most contemporary Croatian grammarians label the verb type discussed here (*jeti* verbs) as the third type.

Table 1: Croatian Verb Classes (I, II, III) and Types (1–10)

I.	<i>a</i>	1. <i>gledati</i> : gleda-A-ti ‘to watch _{inf} ’:	gled-A-m ‘watch _{1.sg.pres} ’
II.	<i>i</i>	2. <i>moliti</i> : mol-I-ti ‘to pray _{inf} ’	mol-I-m ‘pray _{1.sg.pres} ’
		3. <i>vidjeti</i> : vid-JE-ti ‘to see _{inf} ’	vid-I-m ‘see _{1.sg.pres} ’
		4. <i>trčati</i> : trč-A-ti ‘to run _{inf} ’	trč-I-m ‘run _{1.sg.pres} ’
III.	<i>e</i>	5. <i>pisati</i> : pis-A-ti ‘to write _{inf} ’	pis ⁶ -jE-m ‘write _{1.sg.pres} ’
		6. <i>smijati se</i> : smij-A-ti se ‘to laugh _{inf} ’	smij-E-m se ‘laugh _{1.sg.pres} ’
		7. <i>vjerovati</i> : vjer-ov-A-ti ‘to believe _{inf} ’	vjer-uj-E-m ‘believe _{1.sg.pres} ’
		8. <i>krenuti</i> : kre-nU-ti ‘to start _{inf} ’	kre-nE-m ‘start _{1.sg.pres} ’
		9. <i>davati</i> : da-vA-ti ‘to give’	da-jE-m ‘give _{1.sg.pres} ’
		10. athematic verbs : 10.1 <i>znati</i> : zna-ø-ti ‘to know’, 10.2 <i>piti</i> : pi-ø-ti ‘to drink’, 10.3 <i>smjeti</i> : s-mje-ø-ti ‘may, to be allowed’, 10.4 <i>umrijeti</i> : u-mrije-ø-ti ‘to die’, 10.5 <i>uzeti</i> : uze-ø-ti ‘to take’, 10.6 <i>čuti</i> : ču-ø-ti ‘to hear’, 10.7 <i>rasti</i> : ras-ø-ti ‘to grow’, 10.8 <i>trti</i> : tr-ø-ti ‘to rub’, 10.9. <i>reći</i> : rek-ø-ti ‘to say’.	

² As far as the authors of this paper could find in the literature.

³ Verbs ending in *jeti* where this *-je-* is not a thematic suffix but part of a root (e. g. *smjeti* ‘may, be allowed to’) belong to the class of athematic verbs and won't be considered in this article.

⁴ In Croatian the verbs mentioned have two aspectual forms, imperfective (progressive) and perfective. In this paper, *to become* is considered both imperfective and perfective unless it has been marked as perfective.

⁵ Both terms appear in Croatian linguistic terminology. For most of the types, the thematic suffix is a vowel, however it would be more accurate to say that the *thematic vowel* is the ending of the *thematic suffix*.

⁶ The preceding consonant undergoes jotation (in this example, the alternation of *s+j > š*). The same type of alternation affects other consonants within this class.

Hence, the third verb type (*vidjeti* ‘to see’) belongs to the second (*i*) class – verbs with the thematic *-i-* in the present. Instead of the present-day thematic suffix *-je-* in the infinitive, there was once the Old Slavonic *jat* (*ê*) which is mostly realized as *je* in standard Croatian, but can also be realized as *i* or *e* in the Croatian dialects (*viditi*, *videti*). The root (*zelen-*, *vid-*, *star-*) + the thematic suffix *-je-* form the stem (*zelenje-*, *vidje-*, *starje-* etc.) of the verb.

Research at the Institute of Croatian Language and Linguistics (from 2004 to 2006) has made it possible to collect about 24,000 verbs, of which about 500 belong to the third type. The medium to small quantity of this verb type has prompted detailed semantic analysis through corpus research (Croatian Language Repository) and other sources (web, media, scientific publications). A questionnaire/experiment concerning the third verb type was also carried out with a sample of 50 native speakers (Bošnjak Botica 2011). This research made clear that the third verb type was semantically organized around the prototypical meaning “be or become (X)”, which can be directly related to its thematic suffixes (*-je-* in the infinitive > *-i-* in the present).

Verbs that belong to the third type can be divided into two groups or subtypes – (1) verbs with an adjectival root, and (2) verbs with a non-adjectival root. About one half of the non-prefixed *jeti* verbs (125 of them) have an adjectival root. Only the deadjectival subtype is open and productive (although this productivity is very low).

(1) adjectival root

- | | | | |
|----|--|---------------------|--------------------------------------|
| a. | $zelen_{adj} + je_{them.suff} + ti_{inf.suff}$ | <i>zelenjeti</i> | ‘to become green’, imperf. |
| b. | $po_{pref} + zelen_{adj} + je_{them.suff} + ti_{inf.suff}$ | <i>pozelenjeti</i> | ‘to become green’, perf. |
| c. | $zelen_{adj} + je_{them.suff} + ti_{inf.suff} + se_{clitic}$ | <i>zelenjeti se</i> | ‘to be green, show oneself as green’ |

(2) non-adjectival root

- | | | | |
|----|---|--------------------|--------------|
| a. | $vid_{noun} + je_{them.suff} + ti_{inf.suff}$ | <i>vidjeti</i> | ‘to see’ |
| b. | $pred_{pref} + vid_{noun} + je_{them.suff} + ti_{inf.suff}$ | <i>predvidjeti</i> | ‘to predict’ |

3. Morphosemantic analysis

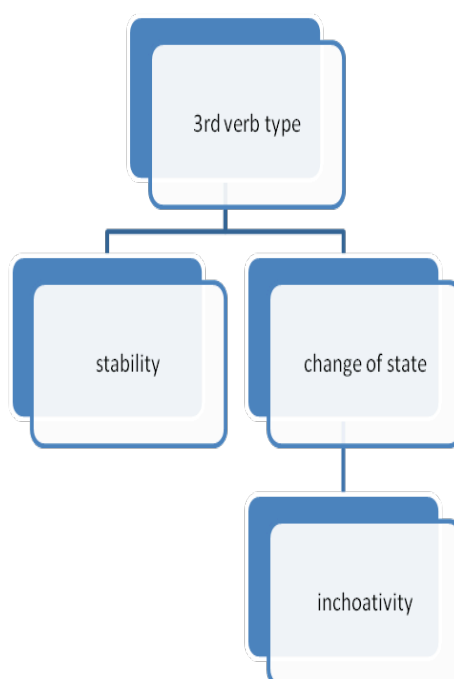
As mentioned above, grammatical (morphological) features like thematic suffixes are not usually related to the lexical meaning of a verb. In Croatian, such a relationship can only be found in these *jeti* verbs derived from adjectives (Babić 2002: 512-513). A certain number of these verbs do have a particular meaning mentioned above. In addition, it is possible to differentiate a few meanings gathered around one overarching concept – STATE. This general concept covers several groups of features (spanning from the most common and productive to the smallest and non-productive): appearance, colour, condition, sensation, emotions, position/motion, sound and meteorology.

(2) Semantic features of the third verb type

- a. APPEARANCE: *mršavjeti* ‘to lose weight’, *očelavjeti* ‘to go bald’, *posijedjeti* ‘to go grey’
- b. COLOUR: *pocrnjeti* ‘to tan / to darken’, *zacrvenjeti se* ‘to turn red’, *bijeljjeti* ‘to turn white’
- c. CONDITION: *starjeti* ‘to age’, *oživjeti* ‘to come to life’, *zatrudnjeti* ‘to get pregnant’
- d. SENSATION: *ožednjeti* ‘to become thirsty’, *ogladnjeti* ‘to become hungry’, *smrdjeti* ‘to stink’
- e. EMOTIONS: *voljeti* ‘to love’, *željeti* ‘to want’, *stidjeti se* ‘to be shy’
- f. POSITION / MOTION: *lebdjeti* ‘to hover’, *visjeti* ‘to hang’, *vrtjeti* ‘to spin’,
- g. SOUND: *cviljeti* ‘to whine’, *šutjeti* ‘to keep quiet’
- h. METEOROLOGY: *daždjeti* ‘to rain’, *grmjjeti* ‘to thunder’

The central or prototypical meaning of *becoming* or *being* can be attached to the first four features (APPEARANCE, COLOUR, CONDITION, SENSATION). These verbs have an adjectival root (*deadjektival verbs*) that designates something as being in a particular visible or observable state. Moreover, these features seem to be the only ones that can actually produce new verbs of the third type. Although their number is limited and depends on the available adjectives, one cannot exclude the possibility of creating a new verb. There is, for example, the verb *zatopljeti* ‘to become warm’, which is a relatively new verb, introduced in weather forecasts (in line with *zahladnjeti* ‘to become cold’). One can perhaps imagine verbs such as *ponarančastjeti* ‘to become orange’ or *rozjeti se* ‘show oneself as pink’, etc. As we will see further, verbs of colour are very interesting to analyse. Although the majority of verbs in the category of sensation are deadjektival, there are also verbs with non-adjectival roots as well (*boljeti* ‘to hurt’, *svrbjeti* ‘to itch’, or *vidjeti* ‘to see’). Verbs presenting other concepts belong to the less prototypical (emotions), and peripheral members (position / motion, sound and meteorology) of the third type, and there are very few of these. It may look a bit unusual to put a verb like *šutjeti* ‘to be quiet’ into the group of SOUND, but we define it as being related to sound (the presence or absence thereof). The same may also be said of the category of POSITION / MOTION, wherein verbs like *letjeti* ‘to fly’ or *sjedjeti* ‘to sit’ are placed.

BE and BECOME stand out as the central meanings of the entire type. This is in line with Jespersen’s claim about the stability and change of state (Jespersen 1992). The majority of *jeti* verbs are intransitive, aside from a small number of very common verbs expressing emotion or sensations, such as *voljeti* ‘to love’, *željjeti* ‘to want’, *vidjeti* ‘to see’. All deadjektival *jeti* verbs are intransitive and denote either stability or inchoativity.



As can be seen, some of the *jeti* verbs listed above may contain the additional element *se* (*zacrvenjeti se* ‘to become red’, *stidjeti se* ‘to be shy’).

In the Croatian language, verbs with the *se* element, whether this is considered a particle or a pronoun, are traditionally referred to as reflexive verbs. However, this category also includes verbs that do not express reflexivity. Such verbs are included because of the formal designation present with every verb – the *se* element. In this paper the *se* element is considered to be only a particle and cannot be treated as a pronoun, which means that it is a

part of the morphological and lexico-semantic structure of the verb, i.e. a part of the verb itself (Sells, Zaenen and Zec 1987, Oliva 2001, Medová 2009, Oraić Rabušić 2013).

Having related the formal (morphological) and semantic features of the third type, the scheme of the morphosemantic analysis is provided in section (3).

(3) Morphosemantic features of the third verb type

- a. $X_{\text{adjCOL}}+JE+ti$ to become X

A verb with the thematic suffix *-je-* with an adjectival root that designates a colour means *become* (imperfective, progressive: *žut+je+ti* > *ujesen lišće žuti* leaves turn yellow in the fall) or *become* (perfective, containing a prefix, e. g. *požutjeti* > *lišće je brzo požutjelo ove godine*, the leaves turned yellow quickly this year).

- b. $X_{\text{adjCOL}}+JE+ti + SE$ being X, to show oneself as X

When a *jeti* verb with an adjectival root designating colour is followed by the clitic *se*, its meaning is *being* or *displaying oneself as* the adjective in the root. Such cases are always imperfective (*žut+je+ti +se* > *lišće se žuti*, leaves are turning yellow) unless they have been prefixed by the prefix *za-* (*zažutjeti se*: ‘to intensely become yellow’ > *cvijeće se zažutjelo u travi*, the flowers turned yellow in the grass).

The difference between the two prefixed adjectival *jeti* forms (*požutjeti* and *zažutjeti se*) lies in the presence of the clitic *se*, which is obligatory for the prefix *za-* in this case.

- c. $X_{\text{adjOTH}}+JE+ti$ to become X

The meaning of other verbs with an adjectival root and the thematic *-je-* is *become* (imperfective: *mršav+je+ti* ‘to lose weight’ > *mršavim iako dosta jedem*, I’m losing weight even though I eat plenty, or *become* (perfective, containing prefix, e. g. *smršavjeti*: ‘to become skinny, to lose weight’ > *od ljeta je namjerno smršavio*, he has intentionally lost weight since summer).

- d. $*X_{\text{adjOTH}}+JE+ti + SE$

Unlike those deadjectival *jeti* verbs concerned with a colour, verbs with other adjectival roots cannot take the clitic *se* unless they are preceded by certain prefixes (*iz-*, *na-*, *raz-*, *uz-*, *za-*). In such cases, they are no longer imperfective and their meaning is different from ‘being, showing oneself as’. This phenomenon is limited to a very few cases (e.g. *razbjesnjeti se* ‘to become enraged’) and even then they are almost synonymous with more frequent *iti* verbs (the second verb type in the presented classification) with the same root (e. g. *raz+bjesn+i+ti +se* > *razbjesnili su se kad su vidjeli rezultat*, they became enraged when they saw the result). Thus it can generally be stated that there are no *jeti +se* verbs with an adjectival root other than colour.

From the examples above, we have seen that *jeti* verbs not preceded by prefix are generally imperfective and intransitive, as well as unaccusative.⁷ Although few exceptions are evident, deadjectival *jeti* verbs are interesting as an evident example of how morphological devices (the thematic suffix) reflect on syntactic structure (verb valency). In other words, intransitivity may be predicted when the conjugational type is known (its thematic suffix in the infinitive).

⁷ For more on this notion, see Levin & Hovav (1995).

Jeti verbs not being derived from an adjective (more peripheral members) are difficult to relate to BE or BECOME. Most of them are intransitive as well, however some can be transitive (e. g. ‘*voljeti* ‘to love’, *vidjeti* ‘to see’).

3.1. Same adjectival root, different thematic suffixes: *jeti* and *iti* verbs

Croatian scholarly literature draws a parallel between *jeti* verbs with an adjectival root and *iti* verbs with the same root in terms of their lexical meaning and, consequently, their syntactic features. A certain number of deadjectival verbs that belong to the third type are paired with second-type verbs (with the thematic suffix *i* in the infinitive and in the present) that share the same root. These *iti* verbs are transitive (causative), denoting ‘to MAKE sb/sth X’ (third *crvenjeti* ‘to go red, to blush’, second *crveniti* ‘to make sb/sth red; third *izludjeti* – to become crazy, perf., second *izluditi* ‘to make sb crazy, to drive sb crazy’, perf., third *oživjeti* ‘to come to life’, second *oživiti* ‘to revive sb’). The fact that intransitive and transitive (causative) deadjectival verbs have different forms has been proven in many languages, diachronically and/or synchronically.⁸ Croatian language handbooks strongly advise language users to distinguish these verbs according to their form and meaning (by choosing *jeti* for the intransitive BE and BECOME and *iti* for the causative to MAKE sb/sth BECOME or BE). Furthermore, Croatian Neo-Štokavian also has a difference in accent (long rising vs long falling tone) between the present tense of deadjectival *jeti* and *iti* verbs (recorded in the newest school dictionary of Croatian), but several surveys have shown that this is no longer relevant and that their present forms have the same accent.⁹

However, a more detailed analysis of the syntactic structure of deadjectival verbs is beyond the scope of this paper and will be investigated in subsequent research. See more on this topic in Jespersen (1924/1992), Lipka (1982), Levin and Rappaport Hovav (1995), Kjellmer (2001), Rappaport Hovav and Levin (2002).

(4) Morphosemantic features of the deadjectival second verb type

- a. $X_{\text{adjCOL}}+I+ti >$ to make/making sth/sb X

Verbs with a colour adjective and the thematic suffix *-i-* in the stem denote TO MAKE/MAKING somebody or something the same colour as the adjective: *žut+i+ti* ‘to make sth/sb yellow’ > *žutimo uskrсна jaja*; we dye / we are dyeing Easter eggs yellow.

- b. $X_{\text{adjCOL}}+I+ti + SE$ to make oneself X

Verbs with a colour adjective, the thematic suffix *-i-*, and the clitic *se* denote that the subject makes or is making itself the same colour as the adjective or applies / is applying that colour to itself: *žut+i+ti+se* ‘to make oneself yellow’ > *djeca se žute žutom bojom*; the children are painting themselves yellow with yellow paint.

- c. $X_{\text{adjOTH}}+I+ti >$ to make sth/sb X

Verbs with another adjective and the thematic *-i-* denote TO MAKE/MAKING somebody or something like the adjective in the stem: *o+živ+i+ti* ‘to revive sb’ > *oživili su pacijenta*; they revived the patient.

⁸ E.g. Jespersen's claim about originally different formative elements of intransitive and causative deadjectival verbs from a historical point of view (1927: 165.5, according to Kjellmer 2001: 154).

⁹ Some Neo-Štokavian local dialects still keep mentioned difference.

- d. $X_{\text{adjOTH}} + I + ti + SE$ to become X or make oneself X

Iti verbs with another adjective root and the clitic *se* can express the same meaning as *jeti* verbs without the clitic: perf. $o + bogat + i + ti + se$ ‘to become rich’, *obogatio se brzo*; he grew rich quickly, imperf. *sušiti se* ‘to dry’ > *rublje se suši* ‘the laundry is drying’.

- e. $X_{\text{non-adj}} + I + ti + SE$ to become X or to make oneself X

Unlike non-adjectival *jeti* verbs, non-adjectival *iti* verbs with the clitic *se* can express the meaning of to become (when prefixed) or be, to show oneself as (when non-prefixed), e.g. *umiriti se*, ‘to calm down, to become still’ > *dijete se umirilo kad je čulo glazbu*, ‘the child calmed down when she heard the music’; *sjajiti se* ‘to sparkle, to shine’ > *na njezinu prstu sjaji se prsten*, ‘a ring is shining on her finger’.

The last two examples bring us to the conclusion that the clitic *se* attached to *iti* verbs can express the same meaning as the thematic suffix *-je-*: BECOME or BE. This can explain why **sušjeti* ‘become dry’, **razveseljati se* ‘cheer up’ or **bogatjeti* ‘to become rich’ have not been attested, while *sušiti se*, *razveseliti se*, and *bogatiti se* have.

Reflexive verbs with the *-i-* thematic suffix have the meaning *to make oneself X* only when there is a counterpart from the same adjectival stem with the *-je-* thematic suffix: *oživiti se* ‘to revive oneself’ / *oživjeti*; ‘to come to life’, *izluditi se* ‘to make oneself crazy’ / *izludjeti* ‘to become crazy’, *oslijepiti se* ‘to make oneself blind’ / *oslijepjeti* ‘to become blind’, *crveniti se* ‘to make oneself red’ / *crvenjeti* ‘to blush’, *žutiti se* ‘to make oneself yellow’ / *žutjeti* ‘to become yellow’ etc.

When reflexive *iti* verbs do not have equivalents from the same adjectival stem with the *-je-* thematic suffix, their meaning is TO BECOME X: *obogatiti se* ‘to become rich’, *razveseliti se* ‘to cheer up’, *ukrutiti se* ‘to stiffen’ if prefixed, or TO BE X: *veseliti se* ‘to rejoice, to be happy’, *ljutiti se* ‘to be angry’ etc. These verbs are not accepted in *jeti* form (**obogatjeti*, **razveseljati se*, **ukrutjeti*, **veseljati se*, **ljutjeti se* etc). Hence, the meaning *to become X* may be expressed by either *jeti* verbs or reflexive *iti* verbs.

A questionnaire on the usage of *jeti* and *iti* verbs was completed by 50 native speakers of Croatian (Bošnjak Botica 2011). The speakers were asked to put the verb into the infinitive form they use daily (first part) and into the form that they believe is preferred by the standard language (second part). The results show that speakers are aware of the morphosemantic relationship BECOME – BE – CAUSE between these two types where deadjectival verb is concerned, but that they choose the phonologically and morphologically less complex form, which is *iti*, in less formal language situations. When asked to put the verb into the preferred form for BE and BECOME the vast majority chooses the *jeti* form.

4. Salient attributes

After analysing the morphosemantic and partially syntactic properties of *jeti* verbs, we can identify the salient attributes that can help us define which *jeti* verbs should be considered a prototype of the third type. These attributes are:

- a. imperfectivity

All verbs that belong to the third verb type are imperfective (progressive) unless they are prefixed (except the verb *vidjeti* ‘to see’, which can be both imperfective and perfective).

b. intransitivity and unaccusativity

Most *jeti* verbs are both intransitive and unaccusative. This means that the subject does not actively initiate the action of a verb, it is not an agent, e.g. *posijedjeti* ‘to become gray’, *rumenjeti se* ‘to blush’, *stidjeti se* ‘to be shy’, etc.

c. adjectival root

We have argued that a new verb can appear with the third type only if it has been derived from an adjective. This makes this type slightly productive (although it has been marked as unproductive in some works, e.g. Dressler et al. 1996). A new verb can be produced either as a new lexical unit (e.g. *poljubičastjeti* ‘to become purple’) or as an intransitive mate of an existing transitive *iti* verb (e.g. *ozdravjeti* ‘to recover’ vs *ozdraviti* ‘to heal, to cure’) in order to morphologically (formally) differentiate between the BECOME and CAUSE meaning.

d. inchoativity

Given that almost all *jeti* verbs denote STATE as their defining (necessary) feature (Hampton 1995), the meaning of BECOME proves to be their characteristic feature ensuring the productivity of the third type in modern Croatian.

Hence, a prototype verb of the third verb type is IMPERFECTIVE (when not prefixed), UNACCUSATIVE, DEADJECTIVAL, and expresses STATE (stability or inchoativity).

The prototypical meaning of the thematic suffix *-je-* denotes STATE. Among deadjectival verbs, this meaning can be realized as BECOME (*starjeti*, ‘to age’) or BE/SHOW ONESELF AS if combined with clitic particle *se* (*crvenjeti se* ‘to show oneself as red’)

However, a certain number of *iti* verbs (with the thematic suffix *-i-*) can also denote BECOME or BE/SHOW ONESELF AS, especially if they are followed by the clitic particle *se*, e.g. *razveseliti se* ‘to cheer up’ > *razveselila se kad je ugledala psića*, ‘she cheered up when she saw the puppy’. This means that these two devices are at some point synonymous in verb derivation. If a verb already exists in the *iti* form (which is prototypically causative) but can have both a causative and inchoative meaning, it will make its verb pair either by forming a verb with the thematic *je* (*ozdraviti* > *ozdravjeti* **ozdraviti se*¹⁰) or by adding the particle *se* to its existing form (*sušiti* > *sušiti se* ‘to dry’ **sušjeti*). As of yet, there is no clear explanation why *-je* is present in some cases and *i+se* in others. What is known for sure is that the clitic *se* is more likely to appear with a non-adjectival root denoting BECOMING, e.g. *urazumiti se* ‘to come to one’s senses’, *hladiti se* ‘to cool’, *ukupiti se* ‘to go rigid’ etc. Perhaps these alternations have to do with the prototype construction, which is causative for these verbs: *hladiti* ‘to make something cold’ and consequently *hladiti se*: ‘to make oneself cold’ > actually ‘to become cold’.

5. Conclusion and future work

This paper attempted to analyse the relationship between the morphological (formal) and semantic properties within one conjugational type in Croatian. About 500 verbs recorded as third verb type members (in this case, *jeti* verbs) were classified into eight semantic fields: appearance, colour, condition, sensation, emotions, position / motion, sound, meteorology. We argued that the prototype verbs of the third type refer to appearance, colour, condition and sensation, and that they are overwhelmingly deadjectival, that fewer prototype verbs refer to

¹⁰ This form *ozdraviti se* could exist as ‘make oneself healthy, cure oneself’.

emotions and position / motion, while those verbs denoting a sound or meteorological phenomenon are considered peripheral members of the category and are not related to any adjective. They all denote some sort of state from which BECOME and BE prove to be prototypes for the entire third verb type.

We demonstrated how morphological devices, i.e. inflection, can change the verb from unaccusative into causative form and *vice versa* by choosing a certain thematic suffix (-*je-* or -*i-*). In other words, this thematic suffix has morphosyntactic value.

Deadjectival *jeti* verbs and deadjectival *iti* verbs form inchoative-causative verb pairs, which will be further investigated, as will be the distribution of *jeti* and *iti+se* constructions.

The third verb type demonstrates more prototypical morphological form than the second verb type, and evinces a more prototypical meaning.

References

- Babić, S. (2002) *Tvorba riječi u hrvatskom književnom jeziku*. Zagreb: Nakladni zavod Globus & HAZU.
- Bošnjak Botica, T. (2011) *Kategorija glagolske vrste u hrvatskom jeziku (A category of verb type in Croatian)*. Ph.D. thesis. Sveučilište u Zagrebu (manuscript).
- Bošnjak Botica, T. (2013) Opća načela podjela na glagolske vrste u hrvatskome u perspektivi drugih bliskih jezika. *Lahor* 15, 63-90.
- Bybee, J. L. & D. I. Slobin (1982) Rule and schemas in the development and use of the English past tense. *Language* 58, 265-289.
- Dressler, W. U., K. Dziubalska-Kolaczyk & A. Katičić (1996) A contrastive analysis of verbal inflection classes in Polish and Croatian. *Suvremena lingvistika* 22, 127-138.
- Galton, A. (1995) Verb Aspect and Prototype Theory. In *Proceedings of the European Conference on Cognitive Science (ECCS'95)*. Saint-Malo: Institut national de recherche en informatique et en automatique & Association pour la recherche cognitive. 121-128. Available at <http://empslocal.ex.ac.uk/people/staff/apgalton/abstracts/eccs95.html>.
- Hampton, J. A. (1995) Testing the prototype theory of concepts. *Journal of Memory and Language* 34, 686-708.
- Jelaska, Z. (2003) Proizvodnja glagolskih oblika hrvatskoga kao stranoga jezika: od infinitiva prema prezentu. In S. Botica (Ed.), *Zbornik Zagrebačke slavističke škole 2002*. Zagreb: FF press, 48-63.
- Jelaska Z. & M. Gulešić Machata (2005) Prototypicality and the Concept of Phoneme. *Glossos (Duke University)* 6, 1-13.
- Jespersen, O. (1927) *A Modern English Grammar on Historical Principles*. Part 3: Syntax, Second Volume. Heidelberg: Carl Winter.
- Jespersen, O. (1992) *The Philosophy of Grammar*. Chicago: University of Chicago Press.
- Kjellmer, G. (2001) Why Weaken but not Strengthen? On Deadjectival Verbs. *English Studies* 82(2), 154-171.
- Lakoff, G. (1987) *Women, Fire, and Dangerous Things: What Categories Reveal about the Mind*. Chicago: University of Chicago Press.
- Langacker, R. (1987) *Foundations of Cognitive Grammar, Volume 1, Theoretical Prerequisites*. Stanford: Stanford University Press.
- Levin, B. & M. Rappaport Hovav (1995) *Unaccusativity: At the syntax-lexical semantics interface*. Cambridge, MA: MIT Press.
- Levin, B. & M. Rappaport Hovav (2003) *Roots and templates in the representation of verb meaning*. Handout of talk at the Department of Linguistics. Available at: <http://web.stanford.edu/~bclevin/su03.pdf>
- Lipka, L. (1982) Causatives and inchoatives in English and their treatment in recent lexicography practice. *Studia anglica posnaniensia* 14, 3-16.
- Medová, L. (2009) *Reflexive Clitics in the Slavic and Romance Languages*. Ph.D. thesis., Princeton University.
- Nesset, T. (2000) Iconicity and Prototypes: A New Perspective on Russian Verbs of Motion. *Scando-Slavica* 46, 105-119.
- Oliva, K. (2001) Reflexe reflexivity reflexiv (A reflexion on a reflexivity of reflexives). *Slovo a Slovesnost* 62(3), 200-207.
- Oraić Rabušić, I. (2013) *Struktura povratnih glagola i konstrukcije s elementom se u hrvatskome jeziku*. Ph.D. thesis, Sveučilište u Zagrebu (manuscript).
- Raffaelli, I. & B. Kerovec (2008) Morphosemantic fields in the analysis of Croatian vocabulary. *Jezikoslovlje* 9 (1-2), 141-169.

- Rappaport Hovav, M. & B. Levin (2002) Change of State Verbs: Implications for Theories of Argument Projection. In J. Larson & M. Paster (Eds.), *Proceedings of the 28th Annual Meeting of the Berkeley Linguistics Society*, 269-280. Available at: <http://web.stanford.edu/~bclevin/bls02hdr.pdf>
- Sells, P., A. Zaenen & D. Zec (1987) Reflexivization variation: Relations between syntax, semantics, and lexical structure. In M. Iida, S. Wechsler & D. Zec (Eds.), *Working Papers in Grammatical Theory and Discourse Structure: Interactions of Morphology, Syntax, and Discourse*. Stanford: CSLI Publications, 169-238.
- Taylor, J.R. (2008) Prototypes in cognitive linguistics. In P. Robinson & N.C. Ellis (Eds.), *Handbook of Cognitive Linguistics and Second Language Acquisition*. New York/London: Routledge, 39-65.
- Taylor, J.R. (2003) *Linguistic Categorization*. Oxford: Oxford University Press.