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USES OF THE CATEGORY OF FREE INDIRECT THOUGHT PRESENTATION IN VIRGINIA WOOLF'S NOVEL *TO THE LIGHTHOUSE*

Abstract

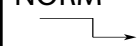
This paper deals with the use of a specific category of thought presentation in Woolf's stream-of-consciousness novel *To the Lighthouse* (TTL), called *free indirect thought* (FIT). Taking a functional perspective on this mode of discourse presentation, the paper is concerned with formal features and stylistic functions of FIT uses in the novel. Samples of FIT presentation of the two main characters have been analyzed within the framework of discourse analysis and pragmatics, taking contextual factors into consideration (external relations of a discourse, social relations between discourse participants). The aim is a qualitative discourse analysis of FIT samples which reveals a correlation between formal features and stylistic functions of FIT, including social differentiation of characters, imitating spoken discourse, as well as provoking empathy or irony on the side of the reader and many more.

Key words: free indirect thought; formal features; stylistic functions; discourse analysis; pragmatics

Introduction

Free indirect thought is one of the categories of *free indirect discourse* (FID) representation (together with *free indirect speech*), which is a stylistically marked mode, employed in one of the most representative stream-of-consciousness novels in modernist literature, Virginia Woolf's *To the Lighthouse*. The choice of FIT makes the reader feel he/she is getting a more vivid and immediate representation of the character's thoughts as they happen (cf. Leech and Short, 2007: 276). It has the effect of apparently putting the reader directly inside the character's mind - since it is impossible to verbally formulate thoughts, FIT is seen as a move to the right of the norm (*indirect thought*) away from the author and his interpretative control into the mind of the character (ibid.), which can be shown in form of a scale of thought representation:

Table 1. Scale of thought representation

| | | | | |
|---|--|-----------------------------|---------------------|---------------------------|
| NRTA (Narrator's Report of Thought Act) | IT (Indirect Thought) NORM  | FIT (Free Indirect Thought) | DT (Direct Thought) | FDT (Free Direct Thought) |
|---|--|-----------------------------|---------------------|---------------------------|

Indirect thought represents the norm, because no one can have access to other people's thoughts, so this mode is the only acceptable way of getting to know the content of someone else's thoughts. *Table 1.* shows that every move to the left of the norm makes the reader closer to the narrator and away from the character, whereas every move to the right of the norm makes the reader approach the active mind of a protagonist, distancing him from the interpretative control of the author. FIT is found halfway between DT and IT, where DT is considered very unnatural, because direct perception of someone's thoughts is not possible. Therefore, when portraying someone's thoughts omniscient narrator is never completely excluded. In the next paragraph we will be looking into some specific features of thought presentation, including formal features and stylistic functions and their correlation in the novel.

1. The role of FIT in the novel and in the modernist literary tradition

Most examples of FIT are found in the first and the third part of the novel *TTL*, which is to be explained by the content of the story itself, and that is the representation of characters' consciousness and the reconsideration of their fictional identity. These are realized through stream of consciousness, not actions. That is why the first and the third part of the novel abound with FIT samples, since they represent areas of personal perspectives of characters on a serious quest for a definition of life. As far as characters are concerned, most parts of FIT belong to one of the two main characters in the novel – Lily Briscoe, which makes this protagonist and her viewpoint dominant throughout the whole novel. On the other hand, Mrs. Ramsay's FIT is restricted to the first part of the novel only; that shows characters' hopes and dreams and is aimed at futurity or posteriority. The second part is restricted to present time describing destruction and decay caused by the First World War and the time flow. The third part of the novel is a resume of characters' longing for the past, in which the majority of those who are gone still live, so most events refer to the past or the anteriority. Consequently, it may be concluded that the events in the novel don't have a linear, but a cyclic structure: the structure of the novel does not contain a traditional sequence of events that are causally linked. This digressive, non-linear method of narrative discourse representation, however, is characteristic of modernism.

Virginia Woolf, just like other modernist writers, made a breakthrough in her use of free indirect discourse presentation, mixing the subjective experience of characters with the episodes of discourse in which the narrator describes the elements of physical world together with the paragraphs in which the reader is faced with the nonverbal emotions of characters. This form of character's discourse presentation is known as non-classical form or *represented perception* (cf. Rundquist, 2014: 165 – 166). This term was first described by Brinton (1980), referring to the description of a narrative world semantically directed towards a particular character's viewpoint. Woolf expanded the definition of free indirect discourse by implementing customized aspects of personal experience,

such as elements of direct discourse, but without direct discourse markers, such as quotation marks.

In the novel *TTL* FIT is undoubtedly the most adequate device used to portray, not only characters' thoughts, but also their personalities and social background. Major characters in the novel, whose stream of consciousness is portrayed via FIT, belong to British upper-middle class, while the discourse of the working-class members is mostly portrayed via direct speech mode of discourse presentation (Ikeo, 2015). It can be argued that Woolf used free indirect discourse to distinguish the social background of her characters and its differences, but the question arises whether she, as a member of an upper-middle class London family, was too class-conscious and insensitive in her presentation of working-class members of British society (Zwerdling, 1986; Lee, 1977)? It can be argued that FIT was her main device in achieving the multi-personal representation of consciousness (Auerbach, 1953), narrating through the perspective of her characters, but with a minimal intervention of the narrator.

FIT in this novel is also characterized by the use of language constructions which aim to resemble spoken discourse, or common speech. This practice within modernist tradition and its fictional prose can be interpreted as an act of protest against the dominant linguistic tradition and the form of writing: there is a change from novels driven by action and events to the ones driven by the internally illuminated consciousness. Evoking everyday discourse implies the use of many personal pronouns (*he, she* and *one*) which do not reveal the protagonist's identity. This intransparency and relativity of deictic reference in form of personal pronouns is part of a general modernist strategy (Adamson, 1999: 675): ambiguous use of deictics, evoking everyday discourse, is even more difficult to untangle once transmitted into written discourse, since contextually conditioned use of pronouns is very typical of conversational discourse. In the next paragraph the use of personal pronouns within the framework of FIT will be looked into in more detail.

2. Methods of analysis

Samples of FIT have been determined within the framework of FID and according to its interpretation as independent units of discourse

called *paragraphs* or *episodes* (Van Dijk, 1982). These paragraphs are characterized as coherent strings of sentences with a beginning and an end and defined in terms of thematic units. Formal and functional features of FIT have been studied including frequent use of the conjunction *for*, pronoun *one*, past tenses together with proximal deictics *now* and *here*, exclamatives and interrogatives with initial *but* and *wh*-words, modal verbs and adjuncts, *-ing* participles and parentheticals. All of the linguistic devices have been investigated as means which aid transition from one perspective to the other, in their dependence on the context of the storyline. Investigating only formal features of FIT, such as these, without considering their stylistic functions would not lead to understanding the complexity of this mode of thought presentation, so the correlation of both, formal features and stylistic functions of FIT has been analyzed.

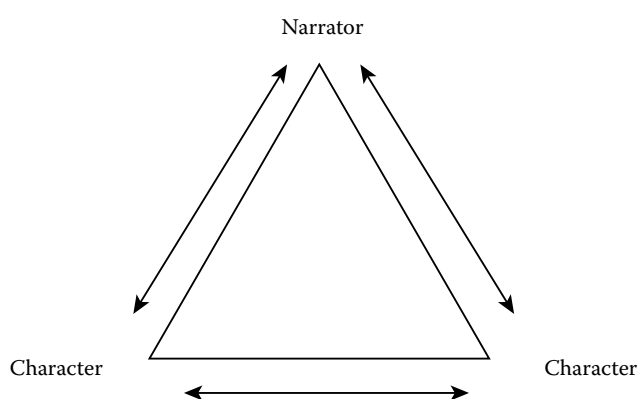
3. The interplay of formal features and stylistic functions¹ of FIT in the novel TTL

Free indirect thought is the dominant mode of discourse representation of the two main characters, Mrs. Ramsay, whose thoughts are portrayed in the first part, and Lily Briscoe, whose stream of consciousness is followed mainly in the third part of the novel. These two characters think more than they speak, while other characters in the novel speak more than they think. The two protagonists are at the same time representatives of two opposing social circles – Mrs. Ramsay is a member of an insider circle of participants, who can be described as the upper-middle class members, whereas Lily Briscoe is a so-called outsider, or an external observer opposed to others. Although Semino and Short (2004: 67) claim that speech representation is of great importance in fictional prose, especially direct speech presentation since it plays an important role in dialogues, in particular developing the storyline, this is not the case in this novel. Because the plot is static and lacks action, with no drastic change of the state of affairs, there is no necessity to transmit

1 Stylistic function is one aspect of language function that can refer to writer's specific use of language or communicative value of specific language categories, such as *free indirect discourse*.

information in form of speech, let alone direct mode of speech presentation. It is only logical for Woolf to use indirect modes of discourse representation, respectively the free indirect thought presentation when it comes to main characters.

When considering thought presentation, it is worth mentioning quick shifts taking place from one character and one viewpoint to the other, including shifts from the character to the narrator and back, which means the narrative structure of thought representation presents a triangle of shifts:



Picture 1: Narrative structure in thought presentation

Some of the linguistic devices, which aid the transition of perspectives, are looked into in the chapter below.

3. 1. *Conjunction for*

One of particularly useful linguistic means of viewpoint shift from one perspective to the other is conjunction *for* which is used 167 times, of which over one hundred times in the first part of the novel. It is most commonly found in thought presentation shifting from the narrator to the indirect mode of thought presentation of one of the characters and vice versa. Sometimes character's thoughts are accompanied by speech, which can be hypothetical², and are introduced by the conjunction *for* in sentence initial position, indicating a shift in character's flow of

² The hypothetical nature of speech can be reflected in the use of the modal verb *would*: *The women bored one so, he would say.* (84)

thoughts, respectively a change of perspectives that is not the same before and after its use:

(1) *For he was not going to talk the sort of rot these people wanted him to talk.* (79)

This is an example of free indirect thought presentation of one of the minor characters in the novel (Charles Tansley), which followed his direct speech presentation, showing the shift of his viewpoint towards other discourse participants (Mrs. Ramsay). The conjunction *for*, then, can be an indicator of a quick change of perspectives or viewpoint shifts involving more protagonists in a short time span, introducing one character's thoughts right after another mode of discourse representation. Its causative meaning generates cohesion in thought presentation, since it connects previous narrative discourse with character's thoughts, indicating the presence of narrator's voice preceding the FIT. Sentence initial position of this conjunction presents a link that connects external and internal voices, in this case (1) a link connecting direct speech presentation and free indirect thought. This is in correlation to Daiches' claims about the conjunction *for* (1945: 72 – 73): it serves as connection of different associative stages in characters' stream of consciousness. It marks a gradual shift from one discourse category to another, i. e. *Direct Speech* (DS) > FIT, revealing character's retreat into his/her own thoughts and connecting the outer world (DS) to internal reality of the subject or his/her own consciousness (FIT):

(2) *For one's children so often gave one's own perceptions a little thrust forward.* (75)

In this example Mrs. Ramsay's free indirect thought is introduced by the use of conjunction *for*, which suggest a change of perspectives (free direct speech preceded) and plays a cohesive device connecting direct speech and *narrator's report of speech act* (NRSA) with the flow of Mrs. Ramsay's thoughts. In this way both internal and external voices are connected, and conjunction *for* helps quick shifts from one perspective to the other, introducing sentences that represent conclusions of the previous ones.

(3) *For* how could one express in words these emotions of the body?
(169)

In example (3) Lily Briscoe's indirect thought is introduced by conjunction *for*, which links paragraphs or episodes of discourse and clarifies various decisions characters made in the previous discourse. In conclusion, it can be described as an *illative conjunction* (cf. Daiches, 1945: 72 – 73), which suggests semi-logical relations between clauses, functioning as a bond of different layers of reality, the internal and the external.

3. 2. Frequent use of the pronoun one

Pronoun *one* is frequently used within the *free indirect thought* presentation, since both share some common features, including uncertainty lying between subjectivity and objectivity in presenting thought. FIT is a *doubling voice* (cf. Verdonk, 2002: 48), which leaves the reader confused when it comes to interpreting the *dual voice*, since thoughts can belong to the character, as well as to the narrator, and it is very difficult to connect free indirect thoughts with any one exactly determined senser, place and time. In paragraphs of discourse containing FIT there is a fusion of two different voices belonging to the character and to the narrator.

The point of view expressed in FIT, which makes use of the pronoun *one*, is subjective, although this pronoun is used as part of Woolf's narrative strategy of objectification of discourse. It can be claimed that this narrative strategy is about expressing a subjective point of view in an objective way, so the reader does not actually have the impression of the narrator ever leaving the paragraph containing FIT. On the contrary, the reader feels this frequent use of the pronoun *one* within FIT leaves the impression of a covert narrator. Using this pronoun within FIT, instead of other definite personal pronouns (*I, we*), Woolf enables the reader to get a more detailed insight into one character's inner self.

The most frequent types of FIT in the novel, belonging to two main characters, refer to inner reflections and inner monologue. Their FIT refers to people in their immediate surrounding – either to the Ramsay's children or to Mr. and Mrs. Ramsay:

(4) *But all, she thought, were full of promise. Prue, a perfect angel with the others, and sometimes now, at night especially, she took **one's** breath away with her beauty.* (54)

The conjunction *but* in the sentence initial position is a marker of FIT, which signals a subjective point of view and a certain reconsideration on the part of the character (in this case Mrs. Ramsay). The projecting clause *she thought* suggests that the content of the projected thought is shown from character's perspective, and the projected clause represents Mrs. Ramsay's FIT, characterized by mixing the proximal deictic *now* with the past tense verb (*took*). In the narrative discourse analysis this ungrammatical combination of the past tense verb and a proximal deictic can be interpreted as a sure sign of interweaving the narrator's voice with the character's personal experience and that is a dual voice, a distinctive feature of FIT. Cohn (1978: 127) claims that in such cases Past Tense loses its retrospective function and becomes a tense which creates its fictional reality right before readers' eyes. The possessive form *one's* is interpreted as an *advanced egocentric* type of possession (Wales, 1980b), since Mrs. Ramsay's feelings, evoked by her daughter's beauty, are very tightly connected with her own self and represent a unique experience that happened *now* and many times so far (*at night especially*).

(5) *And what was even more exciting, she felt, too, as she saw Mr. Ramsay bearing and retreating, and Mrs. Ramsay sitting with James in the window and the cloud moving and the tree bending, how life, from being made of little separate incidents which one lived one by one, became hurled and whole like a wave which bore **one** up with it and threw **one** down with it, there, with a dash on the beach.* (43-44)

In this example Lily Briscoe's flow of thoughts is presented, in which the projecting clause *she felt* contains one of the *verba sentiendi* (Fowler, 1977), that express the mental state of the protagonist and introduce the reader into the character's stream of consciousness (*feel, reflect*). The verb *feel* is especially interesting, since it is at the border of mental and relational processes (Eggins, 2004), so it can be interpreted twofold: as a verb expressing a mental process of perception and as an intensive attributive relational process, synonymous to the verb *to be*. Undoubtedly this verb is used to express inner experience as an indicator of Lily

Briscoe's subjective sensations. The inversion of the projecting clause or parenthetical containing the verb *feel* in the middle, instead of at the beginning of thought presentation, suggests this episode of thought presentation is shown from the perspective of a character, not the narrator, although his presence cannot be completely denied. The purpose of his presence is the description of the physical as opposed to the inner world, and a link between the emotional (mental) and the physical is provided by the use of numerous present participles: *bearing, retreating, sitting, moving, bending, being*. Their use, as well as the use of many punctuation marks (in this case commas), suggests simultaneity of actions and their temporal compatibility (the point in time when Lily Briscoe was observing Mr. and Mrs. Ramsay). Finally, the stylistic function of these formal features is to transform the character's mind into a time mosaic. Pronoun *one* refers not only to the protagonist herself, but to people in general and can be interpreted as *generic egocentric*. This means that both protagonists establish a different framework of reality within their FIT using pronoun *one*. Mrs. Ramsay's pronoun *one* is mostly *advanced egocentric* and refers mainly to a closed group of people, including herself, who she tends to have control over, while Lily Briscoe's pronoun *one* refers to her and people in general, because she makes her conclusions based on the collective consciousness of the mankind.

3. 3. Interrogatives and exclamatives

Interrogatives within thought presentation are a definite sign of FIT, which can be characterized as a form of inner dialogue or an imaginative conversation led by the character alone or with another participant. These are usually unverballed questions without quotation marks and a proper answer, where the intrusion of the narrator is minimal.

(6) *She addressed old Mr. Carmichael again. **What** was it the? **What** did it mean? **Could** things thrust their hands and grip one; **could** the blade cut; the first grasp?* (71)

The repetitive use of the question word *what* and the modal *could* at the beginning of an interrogative sentence is quite common in thought

presentation from character's perspective. It simulates spontaneity of a spoken discourse, signaling the duality of voices or perspectives within FIT. The use of the modal verb *could* suggests epistemic modality, and is a sign of inner doubts and self-reflection (cf. Bosseaux, 2007: 66). Exclamatives, on the other hand, tend to intensify the emotional state of the character and contribute to the expressive presentation of thoughts.

(7) *Alas! Even the books that had been given her, and inscribed by the hand of the poet himself: [...] – neither of those could one send to the Lighthouse.* (25)

This thought presentation begins with the particle *alas*, which is sender oriented and is undoubtedly a sign of a personal perspective of the character. Namely, exclamatives like the one in example (7), which contain past perfect (*had been given*), force a free indirect discourse interpretation (cf. Eckardt, 2014: 149). In this particular case the exclamative is used to express an attitude towards something that takes place at the time of interest of Mrs. Ramsay, who then recalls an earlier experience (of *books that had been given and inscribed*). It expresses a surprise and an emotion about an experience degree (Rett, 2011), about a quality of a post-state and the addressee (if there is one) can only acknowledge the contents expressed by the exclamative.

3. 4. Modal verbs and modal adjuncts

Modal verbs and adjuncts (modal adjectives and adverbs) such as *might*, *could*, *perhaps* and *certainly*, are a typical trigger of FIT when it comes to expressing inner doubts and uncertainties on the part of the sender. Modal verbs belong to lexical markers of FIT and express a point of view or a personal opinion of one particular character about other character(s) or events in narrative discourse. This type of subjectivity is not expected by the reader from an objective third person narrator (Verdonk, 2002). Kratzer (1981, 1991), on the other hand, believes that numerous modal readings should be looked at as a result of their contextual interdependence, instead of as a form of polysemy. Modal expressions in themselves contain only a frame of meaning and can solely together

with a background context take on a certain shade of meaning (either *epistemic* or *deontic*).

(8) *With her little Chinese eyes and her puckered up face she would never marry; one **could** not take her painting very seriously; [...]* (16)

In this episode of FIT Mrs. Ramsay expresses her personal judgment about Lily Briscoe's artistic skills, concluding that her painting *could* not be taken seriously. The question is what Mrs. Ramsay's conclusion is based on. Is it based on her knowing painting skills and techniques, or on a social assumption that women can't paint? Since Mrs. Ramsay is not educated to judge anyone's painting skills, including Lily Briscoe's, it is more likely the answer to the question is that her judgment is based on a generally accepted stance. Lily Briscoe is, namely, an unmarried amateur painter, and it is in this context that her art is being judged. Lily Briscoe's inability to submit to social conventions (to get married) is according to Mrs. Ramsay's view of the world equal to her artistic inexperience. Modal verb *could* is used to express the subject's unwillingness to positively evaluate the artistic competence of another character, that is *deontic* modality. However, the possibility for *could* to express epistemic modality as well, or epistemic detachment and an assumptive nature of Mrs. Ramsay's judgment, cannot with certainty be dismissed. Namely, Mrs. Ramsay's judgments arise from what is already known and is based on „evidence“ collected from other people. Accordingly, modal verb *could* may be regarded as an epistemic modality construct as well.

(9) [...] *but what could one say to her? One **could** not say what one meant.* (18)

Lily Briscoe's FIT in the first part of the novel is largely dominated by interrogative sentences, as is shown in this example. Interrogatives within FIT can be interpreted as reflections of inner doubts of the protagonist, due to strong tensions caused by Mrs. Ramsay's insisting on Lily Briscoe getting married. At the same time, Lily Briscoe feels this marriage community advocated by Mrs. Ramsay is a kind of dilution and a degradation. Her emotions constantly oscillate between courage and insecurity, so interrogative sentences that dominate her FIT are a

clear indicator of certain epistemic states of mind. They vary from ultimate insecurity to a complete resistance to submitting to social conventions imposed on other characters in the novel. Modal verb *could* used in (9) should be interpreted as a marker of subjective modality, as part of a hypothetical construction, an epistemic modal world, which is used to express Lily Briscoe's self-interrogation. This means that *could* does not express temporal precedence considering the moment of thought, but epistemic detachment from what was a true objective fact at the time of thought formation.

Conclusion

In this paper FIT is investigated from the aspect of a correlation between its formal features and stylistic functions. Formal features of FIT, with the emphasis on some of the most prominent ones (conjunction *for*, pronoun *one*, interrogative and exclamative sentences, modal verbs etc.) have been analyzed in the interface of their stylistic functions, which lie behind. They include, among other things, the social differentiation of the characters in the novel, because the ones who belong to the upper-middle class think more than those who represent the working class.

Stylistic functions also refer to Woolf's attempt to simulate conversational discourse in the novel and to provoke either irony or empathy on the side of the reader. The analysis reveals that Mrs. Ramsay's FIT presentation is more egocentrically oriented, since she constantly feels a strong urge to control other people's lives. Lily Briscoe's FIT presentation, on the other hand, reveals uncertainties and inner tensions often caused by contradictory feelings. Her FIT is characterized by the use of many verbs denoting mental processes (*feel, reflect, wonder*) in which the senser is detached from her own experience in order to achieve neutrality and objectivity.

Bibliography

- ADAMSON, SYLVIA (1999) „Literary Language“, ROMAINE, SUZANNE (ed.) *The Cambridge History of English Language: (1776-*

- 1997), vol. IV, Cambridge University Press, Cambridge, p. 591 – 690.
- AUERBACH, ERICH (1953) *Mimesis: The Representation of Reality in Western Literature*, TRASK, WILLARD R. (transl.) Princeton University Press, Princeton NJ.
 - BOSSEAUX, CHARLOTTE (2007) *How does it feel? Point of View in Translation: The Case of Virginia Woolf into French*, Rodopi, Amsterdam – New York.
 - BRINTON, LAUREL (1980) „Represented Perception: A Study in Narrative Style“, *Poetics*, Elsevier, vol. IX, no. 4, p. 363 – 381.
 - COHN, DORRIT (1978) *Transparent Minds: Narrative Modes for Presenting Consciousness*, Princeton University Press, Princeton, NJ.
 - DAICHES, DAVID (1945) *Virginia Woolf*, New Directions, Norfolk, CONN.
 - DIJK, TEUN A. VAN (1982) „Episodes and units of discourse analysis“, TANNEN, DEBORAH (ed.) *Analyzing Discourse: Text and Talk*, Georgetown University Press, Washington DC, p. 177 – 195.
 - EGGINS, SUZANNE (2004) *An Introduction to Systemic Functional Linguistics*, 2nd ed., Continuum, New York – London.
 - ECKARDT, REGINE (2014) *The Semantics of Free Indirect Discourse: How Texts Allow Us to Mind-read and Eavesdrop*, Brill, Leiden.
 - FOWLER, ROGER (1977) *Linguistics and the Novel*, Methuen Publishing, London.
 - IKEO, REIKO (2015) „Speech and Thought Presentation with a Case Study of Woolf's *To the Lighthouse*“, SOTIROVA, VIOLETA (ed.) *The Bloomsbury Companion to Stylistics*, Bloomsbury Academic, London.
 - KRATZER, ANGELIKA (1981) „The Notional Category of Modality“, EIKMEYER, HANS J. – RIESER, HANNES (ed.) *Words, Worlds*

and Contexts. New Approaches in Word Semantics, de Gruyter, Berlin p. 38-74.

- KRATZER, ANGELIKA (1991) „Modality“, STECHOW, ARNIM VON – WUNDERLICH, DIETER (ed.) *Semantics: An international handbook of contemporary research*, de Gruyter, Berlin, p. 639 – 650.
- LEECH, GEOFFREY – SHORT, MICK (2007) *Style in Fiction: A Linguistic Introduction to English Fictional Prose*, Pearson Education, Harlow.
- LEE, HERMIONE (1977) *The Novels of Virginia Woolf*, Methuen and Co., London.
- RETT, JESSICA (2011) „Exclamatives, degrees and speech acts“, *Linguistics and Philosophy*, Springer, vol. XXXIV, no. 5, p. 411 – 442.
- RUNDQUIST, ERIC (2014) „How is Mrs. Ramsay thinking? The semantic effects of consciousness presentation categories within free indirect style“, *Language and Literature*, Sage Journals, vol. XXIII, no. 2, p. 159 – 174.
- SEMINO, ELENA – SHORT, MICK (2004) *Corpus Stylistics: Speech, Writing and Thought Presentation in a Corpus of English Writing*, Routledge, London.
- VERDONK, PETER (2002) *Stylistics*, Oxford University Press, Oxford.
- WALES, KATIE (1980b) „Personal and indefinite reference: the users of the pronoun *one* in present-day English“, *Nottingham Linguistic Circular*, vol. IX, no. 2, p. 93 – 117.
- ZWERDLING, ALEX (1986) *Virginia Woolf and the real world*, University of California Press, Berkeley.