

18. Schwartz, S., Montgomery M., & Briones, E., (2006). The role of identity in acculturation among immigrant people: theoretical propositions, empirical questions, and applied recommendations. *Human Development*, 49, 1–30 .

19. Slama-Cazacu T. (1961). *Langage et Contexte*. The Hague: Mouton.

20. Taras, V., Rowney, J., & Steel, P., (2013). Work-related acculturation: change in individual work-related cultural values following immigration, *The International Journal of Human Resource Management*, 24(1), 130–151.

21. Templer, K., Tay, C., & Chandrasekar, N., (2006). Motivational cultural intelligence, realistic job preview, realistic living conditions preview, and cross-cultural adjustment. *Group & Organization Management*, 31(1), 154–173.

22. Verkyuten, M., (2005). Immigration discourses and their impact on multiculturalism: A discursive an experimental study, *British Journal of Social Psychology*, 44: 223–240.

Larysa Zasiékina

Lesya Ukrainka Eastern European National University, Ukraine

lora_zasyekina@mail.ru

PSYCHOLINGUISTIC REPRESENTATION OF INDIVIDUAL TRAUMATIC MEMORY IN THE CONTEXT OF SOCIAL AND POLITICAL AMBIGUITY

Received September, 15, 2014; Revised November, 15, 2014; Accepted December, 22, 2014

Abstract. The paper focuses on a psycholinguistic study of individual traumatic memory. Among psycholinguistic tools of the research are psychographological analysis, propositional analysis, and frame analysis. The results of psychographological analysis revealed differences between psycholinguistic representations of traumatic events as compared to psycholinguistic representation of neutral events in norm for written speech. Higher psychographological indices in representation of traumatic events show the emotional lability (high sentence length), low awareness and meaningfulness of the event (high quotient of logical coherence), and low motivation (small number of words in the narratives). Frame analysis allowed revealing distribution of traumatic events in the context of political and social ambiguity. Propositional analysis showed distribution of propositional elements in the narration of traumatic events, which express the meaning of traumatic events in a person's life (attitude); significance of external circumstances in the awareness of the traumatic event (external object); the main participants of the traumatic event (external argument); the narrator and his/her role in the traumatic event (internal argument); low importance of localization and chronological order of the traumatic event (context); the secondary (passive) role of narrator in the traumatic event and emphasizing the importance of the external circumstances (internal objects). The results of T-test show the differences in psycholinguistic representation of traumatic memory between two samples: respondents without PTSD (95 people) and respondents with PTSD and tendencies to PTDS (111 people). The narrators of the second sample (with PTSD) have higher indices of norm deviations in psychographological analysis, a higher percent of the attitude and internal argument in the predicate in propositional analysis, lower variety of frame clusters of traumatic events than narrators of the first sample (without PTSD).

Keywords: *traumatic memory, post-traumatic stress disorder, psycholinguistic representation of traumatic memory, psychographical analysis, propositional analysis, frame analysis.*

Засєкіна Лариса. Психолінгвістична репрезентація травматичної пам'яті в умовах соціальної і політичної невизначеності.

Анотація. У статті висвітлено процедуру і результати використання авторського психолінгвістичного підходу до дослідження репрезентації травматичної пам'яті. Психолінгвістичний підхід представлений трьома методами: психографологічним, фреймовим і пропозиціональним аналізом наративів із травматичними подіями. Результати психографологічного аналізу наративів із травматичними подіями свідчать про значні відхилення психографологічних показників цих наративів від показників унормованих психографологічних показників письмової продукції. Зокрема у наративах із травматичною подією встановлені високі показники середнього розміру речення, коефіцієнту логічної зв'язаності, низькі показники загальної кількості слів, що свідчить про емоційні переживання, низьку осмисленість травматичних подій і відсутність бажання це згадувати й оформляти у наративну історію. Результати пропозиціонального аналізу свідчать про частотність використання таких елементів пропозиції у наративах із травматичними подіями: відношення та інтернальний об'єкт як елементи предиката (емоційні переживання та значущість зовнішніх обставин у події), інтернальний аргумент як елемент факту (комплекс вини та власна відповідальність за те, що сталося), а також низьку уживаність часу і простору як елементів контексту. Такий розподіл елементів пропозиції свідчить про значні емоційні переживання досліджуваних під час наративу травматичної події, а також значущість як зовнішніх обставин, так і власної ролі у перебігу травматичної події. Результати фреймового аналізу дали змогу встановити основні види травматичних подій та їх відсотковий розподіл у наративах досліджуваних в умовах соціальної і політичної невизначеності. Порівняльний аналіз наривів двох груп досліджуваних із ПТСР і без ПТСР свідчить про значущі відмінності у психолінгвістичній репрезентації травматичної пам'яті: значне відхилення від показників норми, низька варіативність видів травматичних подій (смерть близької людини та власна небезпека), частотність інтернального аргументу та відношення (як вираження емоційних переживань, комплексу вини і власної відповідальності за травматичну подію) у досліджуваних із ПТСР.

Ключові слова: *травматична пам'ять, посттравматичний стресовий розділ, психолінгвістична репрезентація травматичної пам'яті, психографологічний аналіз, фреймовий аналіз, пропозиціональний аналіз.*

Засєкіна Лариса. Психолінгвістическая репрезентация травматической памяти в условиях социальной и политической неопределенности.

Аннотация. В статье освещены процедура и результаты психолингвистического подхода к изучению травматической памяти. Психолингвистический подход представлен тремя методами исследования: психографологическим, фреймовым, пропозициональным анализом нарративов с травматическими событиями. Результаты психографологического анализа позволили установить значимые отличия психографологических показателей нарративов с травматическими событиями от нормированных психографологических показателей письменной речи. Установлены высокие показатели среднего размера предложения, коэффициента логической связности, низкие показатели количества слов в нарративах, свидетельствующие про эмоциональные переживания, слабое осознание и низкую мотивацию к воспроизведению травматических событий и оформления их в нарративную историю. Результаты пропозиционального анализа позволили выделить наиболее частотные элементы пропозиций в нарративах с травматическим событием: интернальный объект и отношения в составе предиката (значимость внешних обстоятельств, пассивная собственная роль и яркие эмоциональные переживания), интернальный аргумент как элемент факта (комплекс вины и собственная ответственность за происшедшее), низкая частотность времени и места как элементов контекста.

Результаты фреймового анализа позволили определить основные виды травматических событий и процентное распределение в нарративах исследуемых в условиях социальной и политической неопределенности. Сравнительный анализ психолингвистической репрезентации травматической памяти нарративов двух групп исследуемых с ПТСР и без ПТСР свидетельствует о значимых отличиях. В нарративах группы с ПТСР более низкие показатели количества слов, более высокие показатели коэффициента логической связности и длины предложения, более низкая вариативность упоминаемых видов травматических событий (смерть близких и собственная безопасность), более высокая представленность отношения и интернального аргумента пропозиций как выражения собственной ответственности, вины и яркого эмоционального переживания.

Ключевые слова: травматическая память, посттравматическое стрессовое расстройство, психолингвистическая репрезентация травматической памяти, психографологический анализ, фреймовый анализ, пропозициональный анализ.

Introduction

The issue of traumatic memory representation is comparatively new, as it was studied in the middle of the twentieth century. The Oxford Dictionary of Psychology connects the concept of traumatic memory with traumatic neurosis (neurosis precipitated by trauma, which was introduced and analyzed by the German neurologist Hermann Oppenheim in 1889) and post-traumatic stress disorder (an anxiety arising as a delayed and protracted response after experiencing or witnessing a traumatic event involving actual or threatened death or serious injury to self or others) (Colman 2003).

There are different kinds of psychological trauma based on the kind of traumatic event (natural disasters, technological disasters, automobile accident) and on the specific victim population (combat veterans, rape victims, victims of domestic violence, victims of child sexual abuse, crime victims) (Meichenbaum 1994).

The scientific research and scientific evidence for traumatic memory as the factor of posttraumatic stress disorder were first conducted in the USA. Attention was focused on military trauma experienced by Vietnam War veterans. Military trauma is defined as the effect of extreme stressors of war or combat on the individuals who serve in the military. Military trauma is connected with active (real participation in combat activities) and passive (witnessing acts of violence) experiences (Marshall 2006).

Some researchers highlight the political nature of all kinds of trauma regardless of the kind of traumatic event and specific victim. Judith Herman argues in her book *Trauma and Recovery* that study of the trauma nature is always a political process because it draws attention to the experience of depressed people (Herman 1997).

The main techniques of psychological and psychotherapeutic help are discussed by F. Shapiro (EMDR: eye movement and desensitization and reprocessing: verbal processing of distressing events while alternately right and left hemisphere activating) (Shapiro 2001) and S. Taylor (CBT: trauma focused cognitive behavioral therapy) (Taylor 2006). Both approaches were based on the narrative construction of traumatic events and both were proven to be effective by American Psychological Association.

There are three main directions of psychological help for trauma victims: the scope of physical and psychiatric disabilities, the short-term and long-term consequences on

both the victims of traumatic events and on significant others in their lives, and specifics of psychologists' interventions.

The important fact is that traumatic event does not always lead to post-traumatic stress disorder. The determinants of post-traumatic stress disorder are the nature of traumatic event, the personal resources of the victim, and the social support of significant others in the victim's life. Post-traumatic stress disorder also depends on reorganization of highly emotional traumatic memory into emotionally neutral episodic memory (Tulving 1974).

The neuropsychological basis for PTSD is connected with two separate memory systems (Fornberg 1997). Traumatic memory is a kind of implicit memory, which has images of various sensorial modalities, nonverbal and uncontrolled by the mind, fast and automatic, and is easily triggered by specific stimuli, whereas the episodic memory is a kind of explicit memory, which is meaningful, verbal, controlled by the mind, organized in space and time. The explicit memory as basis for episodic memory activates the temporal lobe involving the hippocampus and related cortical areas, while implicit memory as basis for trauma memory is concentrated around amygdala which determines unconscious but highly emotional mental processes. The therapeutic treatment for PTSD from neuropsychological perspective is connected with activating the temporal lobe by means of narrating the story about traumatic event. There has also been a great deal of attention devoted to observable neurophysiological and physiological conditions, e.g. smaller hippocampal volume (Bremner 2001) or poor concentration of urinary cortisol (Yehuda et al. 1995).

Since the scientific evidence for post-traumatic stress disorder treatment is connected with narrating traumatic event and giving access to individual episodic memory, the psycholinguistic approach to traumatic memory representation seems to be very fruitful. There are researches represented reflection of negative events in respondents' life stories, children's narratives as evidence of their ability to link events, narrative constructions as a factor of mental health and well-being, the neuropsychological basis for traumatic memory and post-traumatic stress disorder (Klein 2008; Marshall et al. 2006, Zasiékina 2012).

According to DSM-V post-traumatic stress disorder is often combined with other psychological problems and mental disorders: depression, anxiety, alcohol abuse, insomnia, which are closely connected with social dysfunction and destruction of interpersonal relationships. The important fact is that post-traumatic stress disorder is defined based on the symptoms in DSM-V, which are relatively independent on the type of traumatic events. It means that notwithstanding the type of traumatic events the psycholinguistic representation of traumatic memory has universal character for all victims of these events and can be reorganized by narrative method.

The flashbacks and intrusions as a result of non-reorganized traumatic memory determine the victims' fear and difficulties of reflecting and narrating the traumatic events. The mechanism of repression often restrains victims from narrating. Thus the adequate and convenient assessment procedure, the complex screening the people who are active or passive participants of traumatic event and psycholinguistic intervention for

traumatic memory can lead both for traumatic memory reorganization and decrease of the post-traumatic stress disorder.

In recent months Ukrainians have experienced many traumatic events connected with the Revolution of Dignity, the annexation of Crimea, and the war in Eastern Ukraine where a lot of people were damaged. The traumatic events have affected active and passive participants: the military, significant others in their lives, and Ukrainians who strongly support Ukrainian identity, integrity and independence. The political, social and economic ambiguity in Ukraine makes it similar to a country under terrorist attack and leads to the chronic (permanent) nature of mental trauma among Ukrainians. Specifics of Ukrainians' mental trauma is their avoidance of relatives and significant others, problems in interpersonal relationships, apathy toward the peaceful life and a desire to return to military activity, feelings of guilt, avoidance of professional psychological help, hatred for Ukrainian government, and generalized anxiety under the circumstances of political and social ambiguity. These facts determine the urgency of complex research of traumatic memory representation in general, and the peculiarities of psycholinguistic representation of individual traumatic memory in the context of social and political ambiguity in part.

Methods

The psycholinguistic approach to traumatic memory study is proposed. The psycholinguistic approach to narratives study is represented by methods of psychographical, propositional and frame analysis. The sample was comprised of 206 participants (age 19–25 years, 70 males and 136 females). More than 90% of narrators had at least one traumatic event in their life, but none had received any intervention for their traumatic memory. 39% of the sample still searched for a meaningful perspective to understand negative events from their past. Notwithstanding the fact that nearly 90% of respondents have traumatic memories, 46.1% (95 participants) have no symptoms of PTSD, 47.6% (99 participants) had tendencies toward PTSD, and 6.3% (13 participants) had high indices for PTSD (Mississippi Scale for PTSD). The important fact is that respondents with tendencies toward PTSD are at high risk to have PTSD if they do not obtain psychological interventions (DSM-V).

During the diagnostic procedure respondents were asked to narrate (in written form) a traumatic event from their life. The methods of psychographical analysis (Zasiekina, Zasiekin 2008), propositional analysis (Anderson 1974), and frame analysis (Zasiekina, Zasiekin 2008) were used for revealing the psycholinguistic representations of traumatic memory. The narratives were analyzed from three points. First, as the result of psychographical analysis the number of words, sentence length, quotient of logical coherence was defined. Second, the frame clusters and their distribution in traumatic narratives were revealed. Third, the propositional structures of narratives were analyzed: the distribution of the main elements of propositions: fact (argument – the main external or internal subject/object, predicate – attitude and directed external or internal object); context (space and time).

Data analysis was carried out using SPSS. Descriptive statistics was used to examine psycholinguistic indices of the traumatic narratives.

The study and discussion

The researches on psycholinguistic representation of traumatic memory were conducted by J. Alvarez-Conrad et al. (2001), C. Barclay (1996), E. Foa et al. (1995), J. Pennebaker & M. Francis (1999), D. Garcia et al. (2013). P. Watzlawick et. al. argued that the reinterpretation of the past is one of the ways to change the present behavior (1974). The literary method helps the client to become a narrator and to change the understanding of the past. D. Garcia et al. (2013), using the Latent Semantic Analysis for large corpus of narratives, revealed the main semantic markers (the most frequent words) for respondents with different levels of post-traumatic stress disorder and well-being. The sample was comprised of 450 men who narrated traumatic events in their lives.

Using Linguistic Inquiry and Word Count (LIWS), J. Pennebaker and M. Francis (1999) found out that insight-related words and causal words express an attempt to give the meaning to the experience. They defined the narrative coherence as high occurrence of words connected with cause and insight. The main shortcoming of this method is its disability to define stylistic devices; in the context of therapy for PTSD metaphors and irony are the most important.

C. Barclay proposed not computerized measurement of narrative organization of respondents' memories about their youth. Narrative organization is represented by words which denote temporal or special meaning and have causal-conditional or evaluating nature.

J. Alvarez-Conrad, L. Zoellner, E. Foa (2001) divided narratives of assault victims into three samples according to pre threat, threat and post threat topics. All narratives were analyzed for the number of utterances and words referring to negative emotions and sensations.

The results of psychographological analysis reveal significant differences between psycholinguistic representations of traumatic events in comparison to psycholinguistic representation of neutral events in norm for written speech. The mean number of words in narratives with traumatic event is 66.5 ± 43.25 (while the norm is 250), sentence length is 5.07 ± 3.7 (while the norm is 6.0-9.0), quotient of lexical coherence 3.3 ± 2.4 (while norm <1). The higher indices in psycholinguistic representation of traumatic events show the emotional liability, low awareness and meaningfulness of the event, and low motivation (low index of number of words in the text) to narrate it.

The results of frame analysis allow revealing distribution of traumatic events: 28.8% of all events are represented by the death of significance others; 16.50% – traumatic love; 10.60 % – the danger of safety; 6.70 % – parents' conflicts and divorce; 4.80% – witnessing traumatic events; 4.80 % – family violence and others.

Propositional analysis reveals the following distribution of various propositional elements in the narration of traumatic events: 37.4% of all propositional elements are represented by attitude in the predicate, which express the meaning and impact of traumatic events on the person's life. 23.5% of all propositional elements are represented by external object in the predicate, which express people, things; conditions connected with the traumatic event and denote the significance of external circumstances in the awareness of the traumatic event. 15.1 % of all propositional elements are represented by external arguments, which express the main participants of the traumatic event. 15.0 %

of all propositional elements are represented by internal arguments, which focus attention on the narrator and his/her role in the traumatic event; 5.0% and 0.5% are represented by time and space respectively, which are connected with the low importance of localization and chronological order of the traumatic event. 3.5 % of all propositional elements are represented by internal object as a part of predicate, which express the great impact of the traumatic event for narrator life but emphasizes his/her secondary role in the traumatic event which took place under the great role of the external circumstances.

The results of PTSD diagnostics with the Mississippi Scale allow dividing narrators in two samples. T-test was used to examine differences between two samples: the first included respondents without PTSD (95 people) and the second included respondents with PTSD and tendencies to PTSD (111 people). The alpha level of 0.05 was used for all statistical tests. The results of investigation of psycholinguistic organization of traumatic memory show the significant differences between two samples. The narrators of the second sample (with PTSD or tendencies to it) had higher indices of norm deviations than narrators of the first sample (without PTSD) in psychographological analysis (correspondently, number of words: 66.5 ± 43.25 and 178.4 ± 78.11 , $p < 0.05$; sentence length: 5.07 ± 3.7 and 8.11 ± 4.5 ; quotient of lexical coherence 3.3 ± 2.4 and 1.1 ± 0.11), a higher percent of the attitude in the predicate (correspondently, 37.4% and 20.5%, $p < 0.05$) and the internal argument in the fact (correspondently, 15.0 % and 9.7%, $p < 0.05$) in propositional analysis, which express highly emotional attitude towards the traumatic event, personal complex of guilt and responsibility, lower variety of frame clusters in traumatic event in frame analysis (correspondently, the death of significance others and the danger of safety in the first sample; and the death of significance others, traumatic love, the danger of safety, parents' conflicts and divorce, witnessing traumatic events, – family violence, others).

Conclusions

In this article we have reviewed modern psycholinguistic researches of traumatic memory and PTSD based on narratives with traumatic events. Moreover we presented the results of author's psycholinguistic approach to traumatic narratives study, based on psychographological, frame and propositional analysis. Finally, we found out the significant differences in psychographological, frame and propositional structures in the narratives of respondents' with and without PTSD. Following the idea that narratives are the product of universal human need to communicate with others and to make sense of the world, the cross-cultural research of psycholinguistic representation of traumatic memory could contribute a lot to express-method for PTSD based on individual speech. The procedures of psychographological, frame and propositional analysis are based on logical structure of language (parts of language, frames and propositions) which is indifferent to semantic and grammatical variety of languages. The collaboration between psycholinguists interested in traumatic memory representation could prove a fruitful endeavor that would add much to understanding the nature of PTSD and the individual narratives as the new conception of personality's life.

References

1. Alvarez-Conrad J., Zoellner L. A., Foa E.B. (2001). Linguistic predictors of trauma pathology and physical health. *Applied Cognitive Psychology*, 15(7), 159–170.
2. Anderson, J. R., Bower, G. (1974). Propositional theory of recognition memory. *Memory & Cognition*, 2(3), 406–412.
3. Barclay, C.R. (1996). Autobiographical Remembering: Narrative Constraints on Objectified Selves. *Remembering our Past*, 94–128.
4. Bremner, J.D. (2001). Hypothesis and controversies related to effects of stress on the hippocampus: An argument for stress-induced damage to the hippocampus in patients with posttraumatic stress disorder. *Hippocampus*, 11, 75–81.
5. Colman, A. (2003). *Oxford Dictionary of Psychology*. Oxford: Oxford University Press.
6. Garcia D., Sikström S. (2013). Quantifying the semantic representation of adolescents' memories of positive and negative life events. *Journal Happiness Study*, 14, 1309–1323.
7. Foa E., Molnar, C., Cashman L. (1995). Change in rape narratives during exposure therapy for posttraumatic stress disorder. *Journal of Traumatic Stress*, 8, 675–690.
8. Fornberg, E. (1997). Amygdala, Emotions, Motivation and Depressive States. (pp. 301–333). In, R. Plutchik and H. Kellerman (Eds.), *Emotion: Theory, Research, and Experience*, 3.
9. Herman, J. (1997). *Trauma and Recovery: The Aftermath of Violence – from Domestic Abuse to Political Terror*. Cambridge, Mass.: MIT Press.
10. Klein, K. (2002). *Stress, Expressive Writing and Working Memory. The Writing Cure: How Expressive Writing Promotes Health and Emotional Well-being*. Washington, D.C.: American Psychological Association.
11. Marshall, R. D., Turner, J. B, R. Lewis-Fernandez, R. (2006). Symptom patterns associated with chronic PTSD in male veterans: new findings from the National Vietnam Veterans Readjustment Study. *Journal of Nervous and Mental Disease*, 194 (4), 275–278.
12. Meichenbaum, D. A. (2004). *Clinical Handbook for Assessing and Treating Adults with Post-Traumatic Stress Disorder (PTSD)*. Waterloo: Institute Press.
13. Pennebaker, J.W., Francis, M.E. (1996). Cognitive, emotional and language processes in disclosure. *Cognition and Emotion*, 10, 601–626.
14. Shapiro F. (2001) *Eye Movement Desensitization and Reprocessing*. NY : Guilford.
15. Taylor, S. (2006). *Clinician's Guide to PTSD: A Cognitive-Behavioral Approach*. Guilford: Guilford Press.
16. Tulving, E. (1972). *Episodic and Semantic Memory*. New York: Academic Press.
17. Watzlawick, P., Weakland, J. H., Fisch, R. (1974). *Change: Principles of Problem Formation and Problem Resolution*. Oxford: Oxford University Press.
18. Yehuda, R.B., Kahana, K., Binder-Byrnes S.M., Woutwick, J.M., Giller, E.L. (1995). Low urinary cortisol excretion in Holocaust survivors with posttraumatic stress disorder. *American Journal of Psychiatry* 152, 982-986.
19. Zasiékina, L. (2012). Psyholingvistychna reorhanizatsia travmatychnoyi pamiaty z perspektyvy psykhychnoho zdorovia [Psycholinguistic reorganization of traumatic memory from the perspective of individual psychic health]. *Visnyk of National Academy of Border Service of Ukraine*, Retrieved from http://archive.nbuv.gov.ua/ejournals/Vnadps/2012_1/12zlvpzo.pdf
20. Zasiékina, L., Zasiékin, S. (2008). *Psyholinhvistychna Diahnostyka [Psycholinguistic Diagnostic]*. Lutsk: Vezha.