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***DISTRESS IN ENGLISH MEDIA:
INTEGRATING
COGNITIVE-DISCURSIVE AND COMPUTATIONAL APPROACHES***

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A. Verbytska, T. Krysanova. DISTRESS in English media: integrating cognitive-discursive and computational approaches. The study acknowledges that DISTRESS is a complex cognitive, linguistic, and social phenomenon conceptualized in media discourse by polarized lexical instantiations and conceptual metaphors. This paper focuses on discovering the contrual of DISTRESS and its cultural and contextual objectification in the social context of media discourse. The theoretical backbone comprises conceptual metaphor theory, discourse theory, frame semantics and field theories, and linguistic theory of emotions. Cognitive-discursive framework reinforced by the computational approach reveals communicative situations of distress and their contextual specifications governed by specific communicative strategies and tactics. Integration of discursive and computational analyses with the assistance of Voyant Tools, Textanz, and SentiStrength brings topicality and insightful revelations about the fragments as particular contexts of sociocultural knowledge about DISTRESS. Cognitive framework discloses preconceptual characteristics of DISTRESS, its lexicon, and metaphoric conceptualization on various levels of abstraction. The frame model of DISTRESS represents knowledge and associations about the emotion and the interplay of sensory and symbolic information. Discursive framework underpinned by a versatile text analytical software tool Textanz 3.1.4 enables to identify the types, ratio, and shared values of participants in communicative situations of distress. Sentiment analysis by a software tool for social web texts SentiStrength 2.3 helps extract the strength of mixed emotions on a dual scale (positive/negative sentiments) that articulates evaluative attitudes towards the particular communicative situation of distress regulated by a particular communicative strategy.

Keywords: communicative situation, communicative strategy, concept, distress, media discourse, sentiment analysis.

А. Вербицька, Т. Крисанова. Концепт ДИСТРЕС / DISTRESS в англomовному медіадискурсі: інтеграція когнітивно-дискурсивного та обчислювального підходів. У статті доведено, що концепт ДИСТРЕС / DISTRESS є комплексним когнітивним, лінгвістичним та соціальним явищем, концептуалізованим у медіадискурсі за допомогою поляризованих лексичних засобів та концептуальних метафор. Мета статті полягає у виявленні ментального конструкту концепту ДИСТРЕС / DISTRESS, а також засобів його актуалізації в соціальному контексті медіа. Теоретичний фундамент дослідження складають теорії концептуальної метафори, дискурс-аналізу, фреймової семантики, теорії поля та лінгвістичної теорії емоцій. У рамках когнітивно-дискурсивного та обчислювального підходів виявлено набір комунікативних ситуацій дистресу та їхніх контекстуальних уточнень. Інтеграція дискурсивного й обчислювального підходів зі застосуванням програмних забезпечень Voyant Tools, Textanz та SentiStrength дозволяє визначити додаткові смисли у фрагментах, які становлять собою окремі контексти соціокультурних знань про концепт ДИСТРЕС / DISTRESS, що окреслює актуальність наукової праці. У рамках когнітивного підходу досліджено передконцептуальну основу, лексикон та концептуальні метафори різного рівня абстракції, що об'єктивують ДИСТРЕС / DISTRESS. Фреймова модель концепту ДИСТРЕС /

DISTRESS репрезентує конфігурації знань та асоціацій про емоцію, а також взаємодію сенсорної й символічної інформації про дистрес. У рамках дискурсивного підходу, підкріпленого універсальним аналітичним програмним інструментом для різних видів текстів Textanz 3.1.4, з'ясовано типи та співвідношення соціальних ролей учасників у комунікативних ситуаціях дистресу та цінності, які вони поділяють у соціальному контексті дистресу. Сентимент-аналіз із застосуванням програмного інструменту для соціальних веб-текстів SentiStrength 2.3 допомагає вилучити тональність і визначити оцінне ставлення до фрагментів комунікативних ситуацій дистресу, які регулюються відповідними комунікативними стратегіями, за дуальною шкалою позитивний/негативний.

Ключові слова: комунікативна ситуація, комунікативна стратегія, концепт, дистрес, медіадискурс, сентимент-аналіз.

А. Вербицкая, Т. Крысанова. Концепт ДИСТРЕСС / DISTRESS в англоязычном медиадискурсе: интеграция когнитивно-дискурсивного и вычислительного подходов. В статье выявлено, что концепт ДИСТРЕСС / DISTRESS является комплексным когнитивным, лингвистическим и социальным феноменом, концептуализированным в медиадискурсе с помощью поляризованных лексических средств и концептуальных метафор. Цель статьи заключается в построении ментального конструкта концепта ДИСТРЕСС / DISTRESS, а также выявлении средств его актуализации в социальном контексте медиа. Теоретический фундамент исследования составляют теории концептуальной метафоры, дискурс-анализа, фреймовой семантики, теории поля и лингвистической теории эмоций. В рамках когнитивно-дискурсивного и вычислительного подходов определен набор коммуникативных ситуаций дистресса и их контекстуальных уточнений. Интеграция дискурсивного и вычислительного подходов с применением программных обеспечений Voyant Tools, Textanz и SentiStrength обнаруживает дополнительные смыслы во фрагментах, которые являются отдельными контекстами социокультурных знаний о концепте ДИСТРЕСС / DISTRESS, что определяет актуальность исследования. В рамках когнитивного подхода выявлены передконцептуальная основа, лексикон и концептуальные метафоры разного уровня абстракции, которые объективируют ДИСТРЕСС / DISTRESS. Фреймовая модель концепта ДИСТРЕСС / DISTRESS представляет конфигурации знаний и ассоциаций об эмоции, а также реализует взаимодействие сенсорной и символической информации о дистрессе. В рамках дискурсивного подхода, подкрепленного універсальним аналітичним програмним інструментом для різних видів текстів Textanz 3.1.4, обнаружено типы и соотношения социальных ролей участников коммуникативных ситуаций дистресса и ценности, которые они разделяют в социальном контексте дистресса. Сентимент-анализ с применением программного инструмента для социальных веб-текстов SentiStrength 2.3 помогает извлечь тональность и определить оценочное отношение к фрагментам коммуникативных ситуаций дистресса, которые регулируются соответствующими коммуникативными стратегиями, по дуальной шкале положительный/отрицательный.

Ключевые слова: коммуникативная ситуация, коммуникативная стратегия, концепт, дистресс, медиадискурс, сентимент-анализ.

1. Introduction

Distress is a complex object of psychological, sociological, and linguistic studies. The psychological basics of distress demonstrate that it is the emotion characterized by a cluster structure, an evaluative character, and a causative nature. Distress is provoked by internal and external factors (frustrating and extreme situations), it contains a set of physiological reactions that exteriorize emotion (Wierzbicka, 1999), and is a complex emotion of distress-anguish (Izard, 1991). These results make the ground for the reconstruction of the concept DISTRESS reflecting the conceptualized knowledge of personal experiences of distress in the English language culture.

The tokens in The British National Corpus reveal a vast range of types of distress: *social, economic, mental, psychological, emotional, personal, financial, physical, private, manager's, worldly, national, marine*, etc. (BNC). Distress is characteristic of some specific situations, groups, or age of people. The literature on distress shows that the concept is either tied to a certain age, e.g., infants, children (Brafman, 2016) or to special groups of people, e.g., racial or ethnic minority students (Nidich, 2011), or to a mental disease (Crowe & Alavi, 1999; Demjén, Marszalek,

Semino, & Varese, 2019), physical illness, e.g., respiratory distress. Hence, it proves to be triggered by specific factors, known as stressors, which are always context-bound. The notion of power introduced in discourse analysis of media by Dijk (2006), is of pivotal importance to the intensity scale of experiencing distress. Participants, who feel no power over the stressor, reported higher levels of distress than those in the empowered position (Demjén, Marszalek, Semino, & Varese, 2019). Tiemeyer (2013) asserts that laments and penitential prayers are the means of distress implementation. Previous studies of conceptual metaphors of distress (King, 2012; Demjén, Marszalek, Semino, & Varese, 2019; Verbytska, 2017) touch upon the cross-cultural investigation of distress in Hebrew, corpus-based approaches of distress metaphors in clinical and media discourses. Investigating distress in film, Lotsu (2020) asserts that empathic distress is necessary to instigate a process of social reformation by transforming film viewers' perceptions and attitudes, and Krysanova (2019) considers it to be an emergent dynamic discursive construct. Thus, distress is mind-, context-, society-, and language-bound, that drives us to the cognitive-discursive perspective of its study. Shevchenko claims that cognitive-discursive approach emphasizes communication as a situationally conditioned interaction, giving forth to the production and reproduction of value systems and social relations (2007).

This research addresses cognitive and communicative properties of DISTRESS concept in English media discourse and is underpinned by the computational analysis of emotions, namely, distress. As McEnery et al. (2019) put it, “while it is possible to analyze language manually, robustness of analysis of and depth of insight into attested language use can arguably be achieved only with the aid of computational technology” (p. 35). The computationally-based framework enables to distinguish the distribution and conceptualization of emotion-related responses, and to pave the way for answers to questions about the mechanisms of (re)construction of emotions in discourse. We aim at investigating linguistic means for objectification of DISTRESS concept in English media discourse that involves revealing the lexical instantiations of the concept DISTRESS, identifying a mental construal of the concept by developing a frame model, and distinguishing strategies of DISTRESS implementation in communicative situations as well as extracting sentiments from media messages. The hypothesis entails the presupposition that the concept DISTRESS is a discrete mental representation of native speakers' consciousness. It is realized in the communicative situation and bound to the social context in media discourse. Polarity of the lexicon objectifying the concept in a certain discursive event motivates a particular communicative strategy.

Affective and intellectual spheres are closely intertwined (Bally, 1952; Daneš, 1987; Goleman, 2006, etc.). The study of the concept DISTRESS through ‘lingua mentalis’ is motivated by the claim of Minsky (2006) who stated that “to make any further gain, we'll have to endure at least some distress. So, while pleasure helps us learn easy things, we must learn to ‘enjoy’ some suffering when it comes to learning things that need larger-scale changes in how we think” (p. 213).

2. Methods and data

Methodology of the paper is based on the cognitive-discursive paradigm that enables systematic and complex study of emotions in modern English media discourse. The underlying theories include those of Cognitive Linguistics (Croft, 2003; Kövecses, 2017; Lakoff & Johnson, 1980; Langacker, 1987; Wierzbicka, 1999, etc.), Communicative Linguistics (Dijk, 2006; Issers, 2008; Shevchenko, 2007, etc.), Discourse Analysis (Faiclough, 2003). The methodology, thus, strives on linguistic theory of emotions (Bally, 1952; Daneš, 1987; Goleman, 2006; Shakhovskiy, 2008, etc.), Field Theory, Frame Semantics Theory (Fillmore, 1982), and Theory of Conceptual Metaphor (Kövecses, 2017; Lakoff, 1980, 1993).

The integration of cognitive-discursive and computational approaches employed in this research comprises three stages of the procedure. The first stage of our analysis encompassed modelling the cognitive structure of the concept DISTRESS and distinguishing its lexicon in

English media discourse that involves contextual and conceptual analyses. At this stage we also applied the statistical analysis using *Voyant Tools software* in order to identify hypersemes and hyposemes while constructing lexico-semantic field of the concept DISTRESS. On the second stage of this research, we selected and evaluated discursive fragments as particular contexts of sociocultural knowledge realised by a certain communicative strategy. The third stage implied discourse and content analyses to define qualitative and quantitative features of DISTRESS implementation in media discourse. It included the investigation of the social context of distress realization (on the basis of *Textanz software*), singling out communicative strategies, and defining the polarity of the lexical means that represented the concept DISTRESS in communicative situations of distress (*SentiStrength 2.3 software*).

Our data comprise more than 3,000 occurrences of key word *distress* in the context retrieved from corpora (the COCA, the BNC, GloWbE). The corpus of media texts constitutes more than 47,000 word uses from 17 electronic editions for the period of 2006–2019. They include broadsheets: The Guardian, The Independent, The Observer, The Telegraph, The Wall Street Journal, The Seattle Times, Evening Standard, Metro, Dunfermline Press; tabloids: Daily Express, Daily Mirror, and media platforms: BBC News, CBC News, Salon, NewsFix, openDemocracy, European Jewish Congress.

3. Results and discussion

In this section, we first provide preconceptual characteristics of DISTRESS, build the lexical field and reveal its metaphoric conceptualization. We also make a frame model which represents knowledge and associations about distress and focuses on the interaction of sensory data with a large network of symbolic information. Then, we drive into the analysis of the social context of distress realization that enables to single out communicative strategies and tactics employed by agents in the communicative situation of distress. Finally, we underpin our results with the computational analysis that helps reveal the emotional polarity of a certain communicative strategy.

3.1. Cognitive perspective

Concepts are abstract ideas or mental images that correspond to universals by Aristotle and forms by Plato. They are expressed in language and constructed in discourse. The preconceptual basis is the Jungian archetypes that store in a collective consciousness and specifically in unconsciousness the patterns of behaviour of a person in distress (Jung, 2014). The idiomatic phrase *a maiden in distress* reveals an archetypal event with a defenseless and/or enslaved subject of distress—the archetype of *the fair maiden* (an innocent pure young and goodness personified woman), a typical cause of suffering—the archetype of the untrustworthy and sly *trickster*, and a typical image of a rescuer (a knight in shining armor)—the archetype of *the hero*.

The etymology that goes back to the word-forms *distringere* (Latin), *destresce / destresse*, *destrecier*, *dütresse*, and the archetypal image of the concept DISTRESS reveal the following semantic features: 1) physical separation from someone / with something; 2) cognitive dissonance—being divided in mind; 3) obstacle to achieving the goal, 4) exerting moral pressure on the individual; 5) difficult, anxious situation; 6) real threat and enslavement; 7) involvement of external factors to overcome the state of distress.

The choice for a noun to be a name of the concept is explained by its highest frequency according to POS tagging in such corpora as the COCA and the BNC (Table 1). Tagging explicates the distribution of the key word usages in context.

Part-of-speech distribution of a word form *distress* in corpora

Section title	<i>Distress</i> (n)		<i>Distress</i> (v)		<i>Distressing, distressful, distressed</i> (adj)		<i>Distressingly, Distressfully</i> (adv)	
	COCA (KWIC)	BNC (KWIC)	COCA (KWIC)	BNC (KWIC)	COCA (KWIC)	BNC (KWIC)	COCA (KWIC)	BNC (KWIC)
Magazines	1132	74	15	3	737	62	42	2
Newspapers	684	164	4	2	695	137	20	1
Total	1816	238	19	5	1432	199	62	3
	2054		24		1631		65	

In comparison with other parts of speech, a noun is also multi-facet and polysemous according to lexicographic sources.

The atomising componential analysis of the distress lexicon allows to build a lexical field (Trier, 1973) with subsequent microfields that contain closely knit words related to distress. Names for the microfields and their elaborations were initiated by the results of *Voyant Tools*, a web-based open-source text reading and analysing project (Sinclair & Rockwell 2016). It calculated the frequency of unique words used to define *distress* (n) in 10 lexicographic sources (OALD, LDOCE, COBUILD, The Free Dictionary, RHKWCD, Wordnet Dictionary, MED, MWDT, Sensagent). The bulk of definitions of *distress* (n) consists of words with the highest frequency: *suffering, pain* (9.4%), *danger, state* (7.5%), *caused, physical* (5.7%), *great, ship, situation* (4.7%), *distress, food, money, need, seizure* (3.8%). Hence, the lexical field of the concept DISTRESS includes:

➤ microfield Suffering (56% of lexical units) with two elaborations Psychological / Mental Suffering (35 %) and Physical Pain (21%). Fragment 1 realizes the instantiation of concept DISTRESS as far as a lexical unit *agony* falls into microfield Suffering and means a psychological or mental suffering in the context.

(1) *KILLER Mark Bridger has inflicted fresh agony on the family of April Jones after launching an appeal against his sentence* (Daily Express, December 16, 2013).

➤ microfield Adversity (44%) with two elaborations Danger (24%) and Need (20%). The next fragment demonstrates the lexical instantiation of DISTRESS—*difficulties*—that is included into the microfield Adversity.

(2) *Capello is as beset by difficulties as any who preceded him, but there is a difference* (The Guardian, February 24, 2010).

The nucleus comprises the lexicon that objectifies DISTRESS as a psychological or mental suffering (26%) e.g., *anguish, woe, grief, alarm*, and the meaning of danger is marginal (22%) e.g., *indigence, emergency*, etc.

Semantic study of the emotion language includes the fine-grained analysis of conceptual metaphors of DISTRESS. The current paper presents the findings within the theory of the levels of metaphor that demonstrates the interplay of schematicity (Langacker, 1987) and metaphorical conceptualization (Kövecses, 2017).

Target domain DISTRESS is based on several image schemas, such as VERTICALITY, BLOCKAGE, CONTAINER (Verbytska, 2017, p. 49), BALANCE, and FORCE. Less schematic in the hierarchy are domains that characterize distress in terms of SPACE, COLOUR, SOUND, LIVING BEING, PHYSICAL FORCE, ILLNESS, WEAPON, ACTIVITY. The domains motivate

orientational, ontological, and structural conceptual metaphors. Another important factor that has been taken into consideration is a focal point, that is, associations connected with the emotion itself and with its experiencer.

The domain SPACE embodies the experience of the vestibular apparatus (movement and balance), visual system, sensors of the skin, muscles and limbs (Evans & Green, 2006, p. 234). It includes ontological metaphors: DISTRESS IS HINDRANCE with elaborations MOVEMENT (*I was up against a wall*) and AIR (*grief smothers*); DISTRESS EXPERIENCER IS A BRITTLE OBJECT that accounts for such metaphorical expressions as: *shattered, fragile, wracked, devastated*; DISTRESS IS A CONTAINER (*people in distress*). The mapping reveals the image of distress experiencer as the one who is plunged into this emotion, into his INTERNAL FEELINGS; DISTRESS IS AN EMPTY CONTAINER (*a hole in her heart*); DISTRESS IS FLUID IN A CONTAINER (*outpouring of grief*); DISTRESS IS A MOVABLE OBJECT with such metaphorical expressions as *to bring distress, to hand out the distress, to put aside one's grief, to share one's distress, etc.*

The following fragment of media discourse serves as the example for DISTRESS conceptualization through ontological metaphors in the domain SPACE. Distress experiencer is portrayed as a brittle object that may be broken into very small pieces (LDOCE). Such image of a victimized weak person is employed by media in order to appeal to the reader.

- (3) *Mel Greig and Michael Christian told of their distress upon hearing about Saldanha's death. We are shattered* (The Guardian, December 10, 2012).

The domain SPACE is based also on orientational conceptual metaphors (the image-schema VERTICALITY): DISTRESS EXPERIENCER IS IN THE CENTRE OF EMOTION with the correspondences *amidst / in the midst of the grief*; DISTRESS IS DOWN (*in deep distress, on the precipice of distress, low distress*). In Casasanto and Dijkstra's (2010) parlance, "positive and negative life experiences are implicitly associated with schematic representations of upward and downward motion, consistent with theories of metaphorical mental representation" (p. 179).

Another type of conventional metaphors discloses conceptualization of distress in terms of structured source domains that represent distress or a distress experiencer in media as a trapped person with the vivid manifestation of this emotion, the one who has lost equilibrium and control: DISTRESS EXPERIENCER IS A TRAPPED PERSON (*to be beset by, nowhere seems safe, caught up in*) within the image-schema BLOCKAGE and DISTRESS IS A LOSS OF CONTROL (*a wild, frantic sadness*) that is based on the image-schema BALANCE. The mapping DISTRESS IS BEING UNDISGUISED manifests itself in the metaphorical expression *naked distress*. The mappings DISTRESS EXPERIENCER IS A PERSON WITH LOST EQUILIBRIUM (*stumble into distress*) and DISTRESS IS A LOSS OF EQUILIBRIUM (*shaking grief, unyogalike distress*) are based on the image-schema BALANCE and explain the mental and psychic disorder through the bodily imbalance. The state when the person is unable to control their actions, bodily reactions, thoughts that turn into suicidal is seen as DISTRESS EXPERIENCER IS A PERSON WITH LOST CONTROL (*mad with grief, break down*). Fragment 4 conceptualizes intensity and the undisguised manner of external expressions when being in distress, vulnerability of the distress experiencer:

- (4) *You tread, naked in naked distress* (GloWbE).

Visual and auditory sense modalities are linguistically coded in English media discourse via such perception metaphors of the concept DISTRESS as DISTRESS IS A HIGH-PITCHED SOUND (*to wail one's grief, to honk a cry of, to scream with one's piercing wail*) and DISTRESS IS COLOUR (*the black suffering*). They both are structural conceptual metaphors that are based on the corresponding domains SOUND (fragment 5) and COLOUR (fragment 6):

- (5) *Samira Zakhi screamed with a mother's piercing wail that filled the largest morgue in Damascus. These were Samira's last distressing moments with her son <...>*
(BBC News, November 13, 2013).
- (6) *For some people, the only true way to alleviate the black suffering in their heart when someone whose albums they quite liked dies is to sue* (The Guardian, February 12, 2014).

The concept DISTRESS is structured within the image-schema FORCE that gives us insight into the quality of INFLUENCE of the emotion. The mappings DISTRESS IS A MAGNETIC FORCE and DISTRESS IS A MECHANICAL FORCE show that experiencing emotion can make somebody be attractive or be drawn to it in fragment 7, and distressing event can do harm to the experiencer in fragment 8:

- (7) *His distress only makes him more attractive* (COCA).
- (8) *'Every day, I ask God to give me the strength and courage to face another day,' a distressed Bousignac said. <...> 'It crushed me.'* (The Guardian, November 09, 2014).

The following conceptual metaphors of ontological and structural types show up the qualities of distress to be perceived as an organism in the mapping DISTRESS IS A LIVING BEING (*let grief come out*) and its experiencer as the one who's constrained to socialize with others in the mapping DISTRESS EXPERIENCER IS AN ISOLATED PERSON. Fragment 9 reveals the personified distressing experience by the idiom *to walk the black dog*:

- (9) *For it's precisely sunny-side-up fascism that forces those of us who walk the black dog into lonely invisibility* (The Guardian, August 3, 2012).

The concept DISTRESS is a powerful WEAPON of media to make news go viral appealing to hard life experiences of their readers. Such experiences are structured via injuries, e.g., *wound, shellshocked, stricken* in the mapping DISTRESS EXPERIENCER IS AN INJURED PERSON, as in example 10:

- (10) *Death of her father has reopened fresh wounds that may never heal. <...> 'Every day, I ask God to give me the strength and courage to face another day,' a distressed Bousignac said*
(The Guardian, November 09, 2014).

One more experience of distress as being an *emotional contagion* is structured in the mapping DISTRESS IS INFECTION (*be immune to distress*) within the domain ILLNESS:

- (11) *There was also evidence of 'emotional contagion' <...>. In other words, seeing a 'friend' in distress was distressing to the observers.* (National Geographic, February 18, 2014).

EXTERNAL experience of distress is no less intense than INTERNAL that provokes its conceptualization as DISTRESS IS A PLAY with metaphorical expressions *rehearse /act out the distress, a spectacle is suffering, etc.*, and posits it into a more abstract domain ACTIVITY with further elaboration—CREATIVE ACTIVITY.

- (12) *Teenagers are more likely to act out their distress* (BNC).

Basic componential analysis and that of conceptual metaphor models introduce frames and their elaborations filled with conceptual features of DISTRESS. This all makes up a coherent whole and represents a mental model of DISTRESS concept in media discourse:

➤ EVENT / SITUATION of / about DISTRESS with elaborations PRESSURE, THREAT, RISK, and DANGER set up CAUSE / SOURCE that evokes STATE / FEELING of DISTRESS.

➤ EVENT / SITUATION of / about DISTRESS makes INFLUENCE on AGENT, PATIENT, and EXPERIENCER. The interrelation between these semantic roles, or “case frames” (Fillmore, 1968), or “theta-grids” (Stowell, 1981) can look as follows: AGENT equals PATIENT; AGENT impacts on PATIENT; EXPERIENCER equals AGENT; EXPERIENCER equals PATIENT.

➤ REACTION lies in EXTERNAL EXPRESSION of distress, INTERNAL SENSATIONS of distress, EVALUATION, and ACTION.

The correlation of frames is realized when EVENT / SITUATION of DISTRESS was CAUSED by *shelling or bombing home* and *war-related injuries* and evoked STATE/FEELING of DISTRESS (*stress, grief, sadness*). EXPERIENCER equals PATIENT as soon as *children* were acted upon by external factor DANGER (*war, bombs*) and suffered from it. Their REACTION is highly intensified (*severe, extreme*) by INTERNAL SENSATIONS (*felt grief*) and EXTERNAL EXPRESSION (*showed signs of*).

The frame CAUSE / SOURCE of DISTRESS characterizes such features of the concept DISTRESS as being: 1) sudden, e.g., *Quite suddenly, everything fell apart*; 2) cascade, e.g., *It is distress heaped upon tragedy*, 3) enduring, e.g., *lasting / enduring / on-going / constant distress*; 4) located in time, e.g., *ongoing distress* and other time expressions used in distress events as *two weeks ago, still, all too often*; 5) phasal that can be split into zero phase (*prevent distress*), the first phase of beginning (*to stumble into / to lead to / to inflict / to begin / to cause / to bring / to drive somebody to distress*), the second phase of duration (*to experience / to feel / to suffer / to prolong distress*), and the third phase of ceasure (*to deal with / to get over / to override / to overcome / to alleviate / to ameliorate / to ease / to relieve / to limit / to reduce, distress ends / fades / is over*); 6) intense, e.g., high level of intensity (*profound / acute / intolerable / severe distress*), middle level (*more distressing*), low level (*subtle / mild / very little distress*); 7) connected to the intellectual / mental sphere, e.g., *comprehend / remember / understandable distress*; 8) connected to the perceptual sphere, e.g., *palpable* (tactile) / *evident* (visual) / *sour* (gustatory) *distress*.

The frame REACTION with its elaboration EVALUATION contains polar assessment of DISTRESS in various contexts of media discourse: 1) negative (*awful distress*); 2) positive: *And we must not be scared of unhappiness as a feature of a meaningful life* (The Guardian, 3 August 2012). The elaboration INTERNAL SENSATIONS of the frame REACTION encloses the features of unobservability (*sense / feel / be in distress*) and concealment of distress (*bite the bullet—avoid showing distress*). The elaboration EXTERNAL EXPRESSION of the frame REACTION involves in its turn the features of lack of control (*I shook my head in distress—kinetics; voice dripping with distress—voice; plain, flushed face...a look of distress—face; not be able to hold the tears back—eyes*) and loss of control (*go to pieces—become upset or distressed that you cannot lead a normal life*). The elaboration ACTION within the same frame includes volitional or conscious actions of distress AGENT that can be marked as positive (*heart aches for*) and negative (*reawaken one’s suffering*).

3.2. Discursive perspective

This section focuses on contextual and cultural factors that fine-tune the reconstructed concept model. Fairclough (2003) suggests that discourse analysis should include the identification of such external relations as social structures, social practices, social events, social relations, persons and representations of the world (p. 36). Textanz software tool enables the identification of contexts, communicative situations or events of distress (CSD), and their contextual specifications that articulate communicative strategies.

The most frequent contexts of DISTRESS objectification in the corpus of media texts are *Health / Illness* (21%), *Crime* (19%), *Culture* (15%), *Society* (14%), and *Legal Affairs* (14%). They encompass such communicative situations of distress as: 1) *Loss* (specifications are *Loss of possessions* and *Loss of role*); 2) *Frustration* (specifications—*Unfulfilled goals or unjustified expectations* and *Accumulation of stressful life events*); 3) *Illness, disorder, or injury* (specifications—*Disability / harm to health* and *Illness (mortal, mental), disorder*); 4) *Difficult situation* (specifications are *Lack of money: poverty, bankruptcy* and *Lack of food: famine*); 5) *Physical violence* (the specification is *War*); 6) *Moral violence* (specifications are *Cheating, Mystification; Violation of the emotional balance by external aggression, Abuse, and Indifference or Negligent Attitude*); 7) *Dangerous situation* (the specification is *Fire*).

Communication is strategically organized and involves both linguistic (semantic components of the utterance) and extralinguistic factors (social context with cognitive, cultural, social, and pragmatic features of interaction). Communicative strategies and tactics correlate through the opposition class :: type (Ya-Ni, 2007).

Communicative strategy of agitation. Agitation occurs when people outside the normal decision-making establishment advocate significant social change, and encounter a degree of resistance within the establishment such as to require more than the normal discursive means of persuasion. Strategic steps in the rhetoric of agitation may involve petition, promulgation, solidification, polarization, escalation/confrontation, Gandhi and guerilla, and revolution (Bowers & Ochs, 1971, p. 4). Solidification and polarization are specific for communicative situations of distress. Agitation strategy occurs in distress communicative situations of *Frustration* when communicants' goals are unfulfilled and expectations are unjustified, *Difficult situation* that is induced by the lack or absence of money or food, and *Moral violence* which is realized through cheating or mystification. The strategy governs more specific choices—tactics of emotional state recognition and emotional setting formation. Communicative strategy of agitation includes communicative tactics of emotional state recognition and emotional setting formation. The former is accomplished by the assertion of reciprocity and the latter aims at polarizing the state of distress experiencers emphasizing its negative aspect and forcing them to clearly choose sides. Fragment (13) illustrates the CSD *Difficult situation (lack of food: famine)* and accentuates suffering through mental imbalance (DISTRESS IS A LOSS OF EQUILIBRIUM) in assertive (*it feels*) and expressive (*It's distressing. Depressing. Destabilising.*) sentences. The author depicts the setting with the anaphoric preposition *of* and the syntactic structure *it's*.

- (13) *I know what it is to feel hungry and to see your child go hungry. It's a life of turning off the fridge because it's empty anyway, of sitting across the table from your young son enviously staring down at his breakfast. Of having freezing cold showers and putting your child to bed in god knows how many layers of clothes in the evening. It's distressing. Depressing. Destabilising. <...>. Parents are looking at empty cupboards in despair*
(Daily Mirror, February 26, 2014).

Communicative strategy of emotional state formation is realised through the tactics of building tension, inducing empathy, emotional self-expression, expression of empathy, and restriction or absence of choice. Emotional state formation (relief of distress or its escalation) is a type of speech strategies that pursue the goal of self-presentation, self-expression, or others connected with identity and interaction goals (Issers, 2008, pp. 23, 107–108). The communicative tactic of building tension is implemented by such stylistic devices as hyperbole, understatements, allusions, and generalisation of information. The tactic governs such communicative situations of distress as *Illness, disorder, or injury*, the specification *Damage / harm to health*, and *Moral violence*, the specification *Cheating, mystification* (fragment 14):

- (14) *This week's church readings included the über-miserable Jeremiah, who complained: “Why is my pain unceasing, my wound incurable refusing to be healed?” and refused to “sit in the company of merry-makers” (The Guardian, August 3, 2012).*

The author applies the allusion to the Bible (*Jeremiah*) and a hyperbole (*über-miserable*) to realize the tactic. The code switching technique from English to German (*über*) helps to bring out the highest level of intensity of distress. The fragment activates the feature of duration of DISTRESS (*pain unceasing*) and metaphorical mappings DISTRESS EXPERIENCER IS AN INJURED PERSON by the lexeme *wound*, and DISTRESS EXPERIENCER IS AN ISOLATED PERSON reflected in the communicative behaviour of complaint and refusal. The communicative tactic of inducing empathy is realised in the CSD *Loss* (specifications—*Loss of possessions* and *Loss of a role*) and *Illness, disorder, or injury* (specification—*Illness (mortal, mental), disorder*) by figurative and emotive language.

- (15) *‘Shocked and devastated’ Family's outpouring of grief as man shot in Libya is named. THE family of a British man who was shot dead in Libya have spoken of their “shock” and “devastation” at his killing today. His grieving relatives today said that he “liked the Libyan people” <...>. In a statement his relatives said: “He will be sadly missed by his family and friends. Mark was with a close friend from New Zealand who was also killed and our thoughts are with her family at this sad time” (Daily Express, January 5, 2014).*

Here, the loss of a role of family members (parents) is depicted by the complexity of distress (*shocked, devastated, grieving, sadly*), while the metaphorical image of psychological suffering is revealed through the experience of devastation in the mapping DISTRESS EXPERIENCER IS A BRITTLE OBJECT, and intense overflow with the emotion in the mapping DISTRESS IS FLUID IN A CONTAINER. Empathy relieves the state and activates the feature of DISTRESS—volitional or conscious ACTIONS upon the distress patient.

The communicative tactic of self-expression has the aim to smoothen the experience of distress by the vivid exposal of feelings. This subject-oriented reaction (Fiehler, 1990) is objectified by expressives, intensifiers, hyperboles, repetitions, comparison, allusions, and ascending gradation. The tactic governs such CSD as *Loss* (the specification—*Loss of a role*), *Frustration* (the specification—*Accumulation of stressful life events*), and *Dangerous situation* (the specification—*Fire*). The fragment reveals a whole range of metaphorical images of distress and its experiencer in the CSD *Loss of a role* (a girlfriend): the image of emptiness in the mapping DISTRESS IS AN EMPTY CONTAINER (*a hole in her heart*), the image of an experiencer unable to recover his equilibrium in mappings DISTRESS EXPERIENCER IS A BRITTLE OBJECT and DISTRESS EXPERIENCER IS A PERSON WITH LOST EQUILIBRIUM. These images are intensified by the repetition of the syntactic structure *I will never*.

- (16) *A YOUNG woman who survived a crash that killed her boyfriend on Christmas Eve yesterday spoke of her grief after opening his last present to her. <...>. Ms White said the apprentice stonemason's death had left “a hole in her heart that will never mend”. He will always be in my heart and I will never move on from the loss that we all have lost. “We had the best relationship, he made me smile everyday and I will never be able to mend the pain I'm feeling (Daily Express, December 26, 2013).*

The communicative tactic of expression of empathy governs the CSD *Loss* (*Loss of a role*) and intends to support the distress experiencer by means of hyperbole, reference to the depth, intensity and viral nature of DISTRESS.

- (17) *'It's an understatement to say that we are completely devastated. Our grief runs deep and the impact of Phillip's loss is enormous but nothing compares to the loss felt by those closest to him.'* *'In these darkest of hours cricket puts its collective arms around the Hughes family. Jason Gillespie, the Yorkshire coach and former Australia fast bowler, said on Twitter he was 'shaking' at the news* (The Guardian, November 27, 2014).

The fragment of media discourse is directed onto the expression of the sympathy to the addresser because of the death of a sportsperson. Hyperbole (*completely devastated*), a negative pronoun (*nothing compares*), and a superlative adjective (*darkest*) realize a high level of intensity of DISTRESS. The tactic actualizes lack of control (*shaking*), perceptual metaphor DISTRESS IS COLOUR (*darkest*), feelings of devastation due to the destructive power of emotion (DISTRESS EXPERIENCER IS A BRITTLE OBJECT) and capacity of distress to become viral among the recipients (DISTRESS IS INFECTION).

The communicative tactic of restriction or absence of choice adjusts the reader to the feeling when external circumstances limit the inner freedom of the individual. It governs the CSD *Illness, disorder, or injury* (specification—*Illness (mortal, mental), disorder*) in fragment (18). Communication is unfolding within the social context where doctors and court have a higher status than a claimant. Doctors define the amount of time to spend with a child on his deathbed. Hurrying up events escalates the intensity of distress.

- (18) *"We're not allowed to choose if our son lives and we're not allowed to choose when or where Charlie dies"* (Evening Standard, June 30, 2017).

Communicative strategy of discreditation is implemented through the tactics of indirect assessment or criticism, authority leveling, condemnation, criticism, distrust, and sarcasm. The communicative intention of an addresser in media discourse is to remove the reader out of the emotional comfort zone by pointing out the shortcomings in political, economic, and social systems. The intention being attained, the reader changes attitudes towards politicians, problem-solving methods, etc. The speaker's verbal aggression may include insulting rhetoric typical of confrontation, violating communicative conventions. The communicative tactic of indirect assessment or criticism lies in expressing disapproval of distress experiencer's actions or attitude towards him. Language of discreditation here includes presupposition of criticism in order to eliminate weak points in addressee's mindset. The communicative tactic of authority leveling expresses the communicative intention to nullify the popularity, influence, or activities of a person. The communicative tactic of condemnation reveals admission of guilt for causing suffering to the distress experiencer, illustrates dissatisfaction with the policies of the media and government which act as inducers of a negative emotional state. It focuses on THREAT for an individual, on a distress inducer who promises to do harm to the individual, or represents the possibility or inevitability of danger to the distress experiencer and his emotional state. Fragment 19 illustrates the realization of the tactic of condemnation in the CSD *Moral violence* (specification—*Abuse*).

- (19) *KILLER Mark Bridger has inflicted fresh agony on the family of April Jones after launching an appeal against his sentence. "It's disgusting, he's in prison where he belongs and he should stay there". "He's just torturing my family with these legal battles. It's like he's taunting us, like he wants to show he's got the upper-hand," Mrs Jones told the Sun* (Daily Express, December 16, 2013).

The author discredits the system of punishment for particularly heinous crimes and condemns the judicial system which allows criminals to be released. Security is violated by a criminal who appeals against his imprisonment and thus causes great distress to the family of the murdered

person. Expressives convey the intensity of distress by family members who feel ridiculed by a murderer (*he's taunting us, he's got the upper-hand*). THREAT to a moral safety is objectified by phasal words of entering the state of distress (*inflicted fresh agony*), by an image of physical suffering projected onto psychological (*agony, torturing*). Time localization with Present Simple, Present Perfect, Present Progressive tense forms lets us assume that distress can be renewed and intensified provided that a stress-factor is renewed too.

The communicative tactic of criticism is a means of exposing the addressee's defects in the views on CAUSES / SOURCES of DISTRESS and the attitude to the distress experiencer by directly pointing out the mistakes. The communicative tactic of distrust discredits EMOTION / STATE of DISTRESS questioning authenticity of the emotion experienced by the speaker. The communicative tactic of sarcasm acts as a means of discrediting the actions of the distress experiencer, provided that the emotion does not correspond to the truth. Sarcasm is the capacity of using wit and remarks to imply the opposite sense of what has been said (Boxer, 2002).

(20) *The economy is tanking. People are out of jobs. <...>. Don't worry, be happy. Take a pill. Watch the Olympics* (The Guardian, August 3, 2012).

In fragment of the CSD *Difficult situation* (the specification—*Lack of money: poverty, bankruptcy*) the tactic is implemented by alternation of assertives (affirmative sentences) and directives (imperative sentences). The author exposes in a mocking way that the society does not give the right to experience a negative state and tries to immediately disguise distress.

3.3. Computational approach

This subsection explores the use of two software tools—*Textanz* (3.1.4) and *SentiStrength* (2.3). The former is used to distinguish the types and ratio of participants in communicative situations of distress, and their shared values in the social context of distress. The latter aims at investigating participants' attitudes or sentiments towards the particular situation of distress.

Textanz software tool for quantitative content-analysis is employed to calculate phrase, word, and word form frequencies in the corpus of media texts in order to analyze distribution of participants and social values in communicative situations of distress. Concordance option fosters a further qualitative analysis. Thus, participants fulfil the roles of family members (44%) (e.g., *a family, a mother, a buddy*), children (32%) (e.g., *newborns, children*), judicial and law enforcement officers (31%) (e.g., *soldiers, the UK immigration control*), news media representatives (29%) (e.g., *journalists, the World of News*), politicians (24%) (e.g., *the Labour party, David Cameron*), criminals (23%) (e.g., *a killer, thieves*), health care workers (20%) (e.g., *a midwife; The NHS*), celebrities (1 %) (e.g., *The Duchess of Cambridge*), members of religious affiliations (7%) (e.g., *jewish, anti-Semitic*), the disabled (4%) (e.g., *mentally ill*), sportspeople (4%) (e.g., *Nadal, Hughes*), people with non-traditional sexual orientation (3%) (e.g., *transgender*). The tool enables to track down the events for the interaction, in which the speakers play the roles of disabled, unemployed, and sick, those who are on the verge of death, in detention, in asylum centres, who feel the lack of attention and care (*disabled / sick people; people have died / are dying / die / are being left / aren't getting the care they need / are out of jobs / are trapped; elderly and disabled people forced to move; people held in immigration detention have rates of severe mental distress; defendants*). In a socially-oriented communicative situation of distress participants are of different age (*young people; people over 25; older people*) and number (*hundreds of people; a million older people; all people in immigration detention*).

The roles of the highest frequency are children (230 word forms) and family members (250 word forms) regarded as the most vulnerable layers of the society who often become distress PATIENTs or/and EXPERIENCERS: *child ('s)* (49) / *children('s)* (149), *infants* (3), *offspring* (2), *adolescents* (5), *youngsters* (1), *baby* (6), *babies* (9), *newborns* (2), *foetus* (4); *parents* (58), *parental* (2), *parenting* (1), *parent* (4), *family(-ies)* (115), *friend(s)* (15), *mate* (5), *buddy* (5)

relative(s) (5), *mother* (22), *husband* (6), *wife* (11), *son* (9), *couple* (3), *cousin* (1), *father* (22), *boyfriend* (1).

Children often suffer from famine, domestic and online abuse, restriction of freedom, murders, suicides, bad behaviour and neglect (*child go hungry; child sexual exploitation; harmful to children; the detention of children in the asylum; weapon on its children; he a young child grew up without a mother's love; never enjoyed her childhood days*). These are primary CAUSES for their feeling extreme distress (*children face extreme distress; necessarily traumatic for children; extreme distress to children; severe distress among children could cause life-long damage; children experiencing emotional and mental distress*). Children as distress PATIENTs are exposed to different types and degrees of RISK (*better protect their children from online risks; newborns at risk; babies / children at high risk; the risk of 'child homicide' is greatest; the risk of child maltreatment; the risk of child harm*). The media promotes the need to prevent children's distress by pointing to their vulnerability, weakness and dependence (*these children are among the most vulnerable; a child's frailty and total dependence;*), encourages the government to ensure protection and support of a child's psycho-emotional and physical health, respect and care for their rights and needs (*help keep a child safe and happy; culture where every child matters; children's rights; mental health issues experienced in early childhood; wellbeing of a child; to take children into care*).

Family members act out in the communicative events of distress connected with famine (*even more families are going hungry; it drives more families to food banks*), loss (*distress to the bereaved families / family members / relatives; he lost families members*), illness, disorder, or injury (*prolonging the [brain-dead] mother's life would only cause her family 'unimaginable distress'*).

In fragment (21) of the CSD *Moral Violence* (specification—*Violation of the emotional balance by external aggression*), participants play the roles of children (daughter), judicial and law enforcement officers (lawyer), news media representatives (the News of the World), who act as inducers of distress and distress experiencers.

(21) *The reaction of Milly Dowler's family to the revelation that the News of the World hacked into messages left on her phone was one of shock and disgust, their lawyer, Mark Lewis, said. "Sally and Bob Dowler have been through so much grief and trauma without further distressing revelations to them regarding the loss of their daughter," Lewis said. "It is distress heaped upon tragedy to learn that the News of the World had no humanity at such a terrible time" (The Guardian, July 4, 2011).*

The distress experiencer is focused on their experience of the emotion due to the statistic findings of the personal pronoun *I* and its word forms variables *I've, I'd, I'm, me, my, myself* (414 word forms). Within the CSD, distress experiencers talk about their feelings, hopes and disappointment (*I mourned my marriage like a death; I feel very bad; I started feeling nervous; at the time I was rather nonplussed; I was chuffed; I hope / expect / panicked*), beliefs (*I won't worship; I am a non-believer; I understand; I couldn't even think*), plead guilty to their condition (*I was suppressing; I gradually brainwashed myself; who the hell I really am; my fault / apologies*, etc.), pay attention to the damage caused to their emotional state by external factors (*chasing / following / shooting / watching me; caused me as much 'emotional distress'; making me queue outside; it just made me really sad*, etc.), protect the values encroached upon by the distress inducer, such as life, personal safety, material possessions, family, freedom (*soured my life; my innocence / personal safety / colleague / friend / husband / power / body / marriage / garage / bed / car / road*, etc.), go through the process of adaptation and take responsibility for their lives and emotions (*I decided to take my power back; but I'm taking it slowly*). Fragment (22) illustrates these findings in the CSD *Loss* (specification—*Loss of a role*):

- (22) *'Being left, by someone I loved very much... He'd been my colleague, my friend and my husband. Every aspect of my life was broken.'* <...> *'I mourned my marriage like a death, and then I decided to take my power back.'* <...> *'All of their stories followed, there was a lot of crying, and I knew that what I had to do was to strip away the layers and distil the ideas into movement.'* <...>
(The Observer, February 19, 2006)

The findings provide evidence for the distinct Us vs. Them polarization in media discourse that is represented in a ration of personal and possessive pronouns *we* (156)—*they* (170), *our* (35)—*their* (144), *us* (9)—*them* (63). The ability of this dichotomy to form group identities (in- and out-groups) (Fowler, 1991) reflects the existence of “particular oppositional ideologies that groups create and use for identifying and placing themselves within the network of societal structures and relations” (Lauk, 2002). This opposition also reflects the hostility of external circumstances and stimuli for the distress experiencer that set DANGER, THREAT, or RISK for him and give him a reason to blame the inducers in his own emotional state.

- (23) *They were escorting the 46-year-old on a British Airways flight <...>. “They were crowded around me and the back of my seat and it seemed a bit odd,” he said. <...> they basically just grabbed him and he started yelling and they basically dragged him to his seat They were really rough with him and it sounded like he was in a huge amount of pain. We moved to the front of the plane because it was really quite distressing and then moved back again. They said they were deporting him and were trying to restrain him. It just seemed a bit of an overkill to be honest.” “It is not my judgment, but at the time I found it quite distressing because when you get on a plane that is not what you want to see,” he said*
(The Guardian, 22 October 2010)

The proportion of personal pronouns *I* (5), *me* (2), *my* (3), *we* (11), *you* (3), *he* (24), *him* (11), *his* (5)—*they* (10) in fragment (23) denotes an emphasis on the distress PATIENT upon whom the hostile actions of physical and moral violence were induced. The addresser uses this polarization to have the addressees sympathise with the distress patient/experiencer and show negative attitude towards the immigration officers.

Shared values in a social context of distress have been identified with the help of concordance option of Textanz in the corpus of media texts. They are “dynamic, ongoing and never complete social process”, “a part of everyday discursive and social practices” entangled with ideologies and identifications, and “their situated formulations are constrained by ideologies and the cultural and societal levelsubject positions that they make available” (Menard, 2017, p. 90). Analyzed words and word forms objectify such values as family, death, life, freedom, justice, support, hope, truth, and time. Family has traditionally been seen as a ‘refuge’ from the worries of the world, and the way out of family means great loneliness, misery and social instability. The emotional state of one family member depends on the emotional state of the whole team as family members are a part of one community (*we as a family shared that love; part of our family; the cricketing family*).

Death is objectified by a number of word forms *death* (46), *dead* (2), *died* (10), *die* (9), *lethal* (1), *final moments* (1), *end* (11) / *-ing* (3), *dying* (4). CAUSES / SOURCES of DISTRESS in media discourse are deaths of children, relatives, and favourite celebrities (e.g., *the death of a child; infant death; by their hero's death; Diana's death; her grandfather died; traumatized by the death; shattered over death*). Experience of distress caused by a break-up is compared to death (e.g., *I mourned my marriage like a death*). Negative INFLUENCE of distress provokes to suicidal thoughts and assisted death (e.g., *desire to end life; another human being end it [life]*). 77 word forms portray life in distress as *marred, unbearable, ruined, broken, finished, destroyed, disrupted* with a person *being unable to handle* it. Despite the mostly negative image of life in distress in

media (e.g., *wildness of life; it is indeed a topsy-turvy world in which we live; life is never easy*), positive associations form the value of a successful and meaningful life (e.g., *you have to get on with your life; life-chances; to cling to life*).

Absence or lack of freedom is CAUSE / SOURCE of extreme DISTRESS. Internal and external factors stipulate for entering the emotional state. 130 words and word forms reveal that detention, deportation, captivation, etc., are external factors of distress (*detention; detained; detainee; restrain; restraining; restraint; forcibly; guards; holding; escort; deportation; deport; deported; deportee; departing; removal; removed; removing; captive; captivity; stranded; people are trapped*) whereas the decision to EVALUATE a situation as unwanted, hopeless, one that carries grief, suffering, or pain is treated as the internal factor of distress. Justice is one of the universal values and is frequently entangled with the topic of *Legal Affairs*. It's objectified by the following word forms: *justice (9), no feeling of vengeance or retribution, justified, investigate / -d / -ion, reinvestigating, search / -ed, seeking, human rights, sentence, term, punished / -ment, term, extradite / -tion, unfair, deserves (to be punished)*. Distress experiencers see the restoration or establishment of justice, the punishment of distress inducers as a means of alleviating their emotional state.

Support and hope are seen as essential elements of a communicative situation to cease distress. The amount and delicacy of support are of paramount importance (e.g., *not given enough support, with the right support, children can recover; adequate adult support*). Hope as a universal spiritual value is objectified as a part of a triad of concepts FAITH–HOPE–LOVE and fosters alleviation of distress (e.g., *hoping it would go away; hopelessness and apprehension about their future; vain hope*). Social value of truth is realized through the indication of its antipode—cheating or mystification by such word forms as *lies; lie detector; be duped, fraud; fraudulently; fake; fictitious; pretending; prank*. Time plays a decisive role for intensity, avoidance, and relief of distress. It denotes localization of distress experience on the timeline and its evaluation (e.g., *the time I was rather nonplussed*).

SentiStrength (2.3) is a free software tool for academic research developed by a group of researchers supervised by professor of data science Mike Thelwall (2012), University of Wolverhampton (UK). It detects and automatically extracts sentiment-related information from the text reporting binary, trinary, or single scale results. Free version allows to extract binary scale results only, that is, positive/negative sentiment strength that ranges from -1 (not negative) to -5 (extremely negative) and from 1 (not positive) to 5 (extremely positive) (Table 2). *Analyse All Texts in File [each line separately]* option from the *Sentiment Strength Analysis* menu classified 25 fragments of media discourse for sentiments that represent communicative situations of distress governed by communicative strategies of agitation, emotional state formation, and discreditation. *EmoticonLookupTable*, *SlangLookupTable*, *EnglishWordList*, *NegatingWordList*, *IdiomLookupTable*, *BoosterWordList*, and *QuestionWords* contain annotated sentiment-bearing words and underpin automatic extraction of sentiments by SentiStrength 2.3 in every word in a separate line, in every sentence, and finally, in every fragment.

Sentiment analysis of communicative situations of distress

Communicative strategy	Communicative situation of distress (CSD)	The strength of positive sentiment (+ve)	The strength of negative sentiment (-ve)
Agitation	<i>Moral violence</i>	2	-3
	<i>Difficult situation</i>	1	-4
	<i>Frustration</i>	1	-3
Emotional state formation	<i>Cheating, mystification</i>	2	-4
	<i>Illness, disorder, or injury</i>	2.6	-3
	<i>Loss</i>	2	-4.5
	<i>Frustration</i>	3	-4
	<i>Dangerous situation</i>	2	-5
Discreditation	<i>Moral violence</i>	1.8	-3.3
	<i>Physical violence</i>	2	-4
	<i>Illness, disorder, or injury</i>	2	-2
	<i>Frustration</i>	1.5	-4
	<i>Difficult situation</i>	4	-1

The findings indicate two scores at the same time (positive (+ve) and negative (-ve)) as tool is instigated by the psychological study that “people can experience two oppositely valenced emotions or mixed emotions in parallel” (Berrios et al., 2015). The results supply the fine-grained manual analysis with additional insights and verify pure linguistic introspection by statistical data.

Thus, we integrate sentiment analysis of fragments of media discourse with discursive analysis. The example is the aforementioned fragment 13 (subsection 3.2) that represents the CSD *Difficult situation (lack of food: famine)* governed by the communicative tactic of emotional state recognition, the agitation strategy:

- (24) *I know what it is to feel hungry and to see your child go hungry. It's a life of turning off the fridge because it's empty anyway, of sitting across the table from your young son enviously staring down at his breakfast. Of having freezing cold showers and putting your child to bed in god knows how many layers of clothes in the evening. It's distressing. Depressing. Destabilising. <...>. Parents are looking at empty cupboards in despair*
(Daily Mirror, February 24, 2014).

Our introspective conclusion that the author attempts to polarize the state of distress experiencers is proved by the high strength of the negative sentiment of the CSD [1; -4]. Sentiment-bearing words that determinate the strength of separate sentences and a whole fragment are *hungry* [-1], *enviously* [-2], *cold* [-1], *distressing* [-2], *depressing* [-3], and *despair* [-3].

The CSD *Loss* governed by the communicative strategy of emotional state formation, is objectified by four fragments of different strength. The mean value represents the strength of negative sentiment [2; -4.5]. The most polarized is the aforementioned fragment 17 (subsection 3.2) [1; -5], in which the communicative tactic of expression of empathy governs the CSD *Loss (Loss of a role)*:

- (25) *'It's an understatement to say that we are completely devastated. Our grief runs deep and the impact of Phillip's loss is enormous but nothing compares to the loss felt by those closest to him.'* *'In these darkest of hours cricket puts its collective arms around the Hughes family.*

Jason Gillespie, the Yorkshire coach and former Australia fast bowler, said on Twitter he was 'shaking' at the news (The Guardian, November 27, 2014).

The author extensively refers to metaphorical associations of distress (*brittleness, infection, dark colour, being down*) depicting a vivid picture of experiencing the emotion. Sentiment-bearing words that instigate the strength of a whole fragment are: *devastated* [-4], *grief* [-3], *loss* [-2], and *shaking* [-1]. Although the tool identifies strong negative sentiment, it does not take into account intensifiers (e.g., *completely* [0], *devastated* [-4]) that linguistically indicate even a higher degree of strength.

The CSD *Frustration* has got the highest strength of the negative sentiment [1,5; -4] among the ones governed by the communicative strategy of discreditation:

(26) *Like JFK or Diana's death, we all remember where we were the day Brooklyn Vegan blogged about British Sea Power's keyboardist leaving. The trauma was shortlived. But can events in pop really be traumatic? And if so, should I contact my lawyers about the following cases that soured my life? Maybe I shouldn't have been shocked, er, "emotionally distressed", to see the Velvet Underground's drummer appearing at a Tea party rally in 2010. <...> But she once sent me a signed picture of her and ... I don't know, it just made me really sad, all right?*

(The Guardian, February 12, 2014).

In the fragment, SentiStrength shows the level of affective influence upon the reader by the author's referring to the metaphorical associations of distress with injury (*trauma* [-3], *traumatic* [-3])—DISTRESS EXPERIENCER IS AN INJURED PERSON, to the perceptual image of taste (*soured* [-1]), to the social value of *death* [-2] and such instantiations of DISTRESS as *distressed* [-2], *shocked* [-2], and *sad* [-3].

The strength of the positive sentiment is much higher than that of the negative one [4; -1] in the CSD *Difficult situation* in the aforementioned fragment 19 (subsection 3.2). The CSD is governed by the communicative strategy of discreditation as soon as the author applies the tactic of sarcasm that still poses the biggest challenge for computational detection. Sarcasm changes the polarity of a whole message expressing the opposite message of what has been written. The tool identifies the strength of the negative sentiment in the word *worry* [-3] and of the positive sentiment in the word *happy* [1] detecting no signs of sarcasm implied by the author.

4. Conclusions

Integrating cognitive-discursive and computational approaches enables to investigate DISTRESS in English media discourse as a multifaceted phenomenon. It is instantiated by a number of lexemes grouped into microfields denoting physical or mental / psychological suffering and adversity. The reconstructed mental model of DISTRESS reveals its conceptual features that fill in the frames and corresponding elaborations of the model and specify the multifaceted nature of DISTRESS. The discursive analysis fosters the investigation by giving insights into the types of communicative situations of distress and their corresponding contextual specifications, including social roles of participants and their shared values.

The application of the computational approach reinforces the accuracy of results and linguistic interpretations. Voyant tools helps establish the names for microfields at the stage of the cognitive analysis by defining the frequency of unique words in the corpus of definitions. Textanz provides the frequency of word forms and phrases and concordance for the corpus of media texts to define the social roles of participants and shared social values of life, death, family, time, freedom, justice, support, hope, and truth in the social context of distress. SentiStrength defines the polarity of lexicon in fragments of media discourse that represent a certain communicative situation of distress. The strength of negative and positive sentiments reveals attitudes of the speaker who consequently applies communicative strategies of agitation, emotional state formation, or

discreditation with the follow-up number of communicative tactics. Thus, the present paper opens us new perspectives onto the complex application of cognitive-discursive and computational approaches to study linguistic phenomena.

ABBREVIATIONS

BNC—The British National Corpus
 COBUILD—Collins English Dictionary
 COCA—Corpus of Contemporary American English
 CSD—communicative situation of distress
 GloWbE—Corpus of Web-Based Global English
 LDOCE—Longman Dictionary of Contemporary English
 MED—Macmillan English Dictionary
 MWDT—Merriam-Webster: Dictionary and Thesaurus
 OALD—the Oxford Advanced Learner's Dictionary
 POS—part-of-speech tagging
 RHKWCD—Random House Kernerman Webster's College Dictionary

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