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The mental consideration of RESILIENCE as a relevant social concept (a corpus-based research of American English)

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Abstract

The article is dedicated to researching RESILIENCE as a relevant social concept. It puts forward a new idea to study the actual mental consideration of social and political phenomena via purely linguistic tools. As a research methodology, a new approach is offered. In particular, the authors extrapolate Zhabotynska's semantics of lingual networks onto Popova and Sternin's semantic-cognitive analysis. The study is conducted through corpus technologies: a COCA sample of discourse contexts with the *resilience* lexeme is used to reconstruct a conceptual model of the RESILIENCE concept (denotative meaning). Subsequently, this meaning is processed via two cognitive operations: cognitive interpretation and prominence. Finally, the field cognitive model of RESILIENCE is obtained. Sorted by frequency in the corpus sample as core and periphery zones, the separate cognitive features indicate what is more or less important for Americans in the current consideration of RESILIENCE as a social and political phenomenon. Each research stage is explained and discussed by the authors in detail.

Key words

Resilience, concept, conceptual model, field cognitive model, discourse, corpus, American English, mental consideration

1. Introduction

Humans exist in a constantly changing world. Their development is determined by political and social processes that can be both positive and negative. In the case of challenges, humans resist, become accustomed to and overcome problems. In other words, their resilience towards new obstacles is improved. Therefore, the resilience topic and its research should be focused on, especially concerning resilience in the face of modern military conflicts: the crises in Ukraine, Syria, etc.

As a human value in social and political developments, resilience has to be studied. In spite of many possible avenues for its research, the linguistic path is a promising one. Currently, discourse is often regarded as the analogue of human consciousness where all surrounding phenomena are fixed and analysed (Martyniuk, 2011, pp. 11-21). Meanwhile, discourse integrates all people's experience of contact with the material world itself. Thus, its resources may be used to produce and analyse the consideration of separate mental units, which are called concepts.

When overcoming problems, humans become more resilient. The new experience is reanalysed, which produces a new attitude to resilience. In such a way, the mental consideration of the RESILIENCE

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concept changes and the concept itself evolves into a new stage. From this perspective, RESILIENCE can be regarded as a mental dynamic unit whose verbal name represents a common empirical unity of contacts with the material world, describes the attitude towards it and states social progress. This concept definition correlates with modern ideas that concepts are dynamic rather than static units (Zalevskaya, 2005; Martyniuk, 2017; Tatsenko, 2018).

Recently, the topic of resilience has been actively investigated from many aspects. There have been many studies of resilience: in local government (Borghetti et al., 2021; Janssens et al., 2021); state government (Merkel and Lührmann, 2021); company management (Plimmer et al., 2022); logistics (Wieland and Durach, 2021); economy (Iacobucci and Perugini, 2021); international trade (Mena, Karatzas and Hansen, 2022); industry (Gasser et al., 2021), construction (Lopez and Castro, 2021); ecology (Pamukcu-Albers et al., 2021); medicine (Haldane et al., 2021); psychology (Atari-Khan et al., 2021); culture (Newsinger and Serafini, 2021) etc.

However, currently there are no studies where resilience is investigated via linguistic tools as an evolving mental structure, namely as the RESILIENCE concept. In terms of which linguistic community to analyse, Americans have a historical reputation for being skilled at solving problems and recovering from them. That is why the first-ever study of resilience as a social and political phenomenon via linguistic tools was based on American English discourse. The corresponding methodology will be stated below.

2 The types of concept models in the human mind

Existing in the world, humans perceive the things and phenomena of reality. This is mentally processed and verbally distributed among other society members. Correlation between mental data (concept) and the units naming them (words) shows that there is a close connection between the concept and the lexical meaning of its names. Therefore, the conceptual structure (mind) is equal to the lexical structure (language). Subsequently, mechanisms of human consideration may be researched through lingual resources.

The close connection between the identity of the concept and the lexical meaning of its name suggests that concepts may be investigated via purely semantic methodologies: component analysis of dictionary definitions, analysis of logical predicates in discourse contexts, and associating experiments (Zhabotinskaya, 2013, p. 70). The obtained semes are treated as concept cognitive features. They are reproduced as a matrix (a set of domains) or a network (domains arranged propositionally).

Although they are similar, there are some differences between conceptual and semantic reconstructions. According to Zhabotinskaya (2013, p. 57) and Bondarenko (2017b, pp. 349-350), the main differences consist in:

- 1) Research results. Semantic analysis clarifies the linguistic unit (explains the word semantic structure; defines its denotative, significative and connotative meanings by means of semes). Conceptual analysis is aimed at knowledge about the world (search for those conceptual structures that are marked by a certain lexical unit).
- 2) Abstraction degrees. While semantic analysis provides meaning semes, the components of conceptual analysis are exposed to higher abstraction. In other words, semes are abstracted to domains as topical categories within the conceptual structure.
- 3) Composition degrees. For semantic analysis, a simple set of semes is received. In conceptual analysis, semes (thematically abstracted to domains) are arranged as a certain schematic complex: a matrix or network of domains.

Generated via semantic methodologies, the conceptual structure is further exposed to cognitive modelling. In particular, the concept contents are arranged in the mind through some cognitive operations: specificity, focusing, prominence, perspective (Langacker, 2008, pp. 55-92; Zhabotinskaya, 2013, p. 61). Finally, a certain set of cognitive operations applied to the same conceptual model can produce one of several cognitive models. They represent general mental consideration of the concept in the mind of a language community.

Among cognitive operations, special attention is paid to prominence. Langacker (2008, pp. 66-73) defines it as the accentuation of cognitive features in the concept whose degree depends on their frequency in the discourse. In other words, cognitive features as concept contents are sorted by

hierarchic speech realization and embodied in a cognitive model. There can be a field, modus, layer models, etc.

Within **the field model**, cognitive features are arranged by decreasing speech frequency as field concept zones: the core as well as the close, far and extreme periphery (Popova and Sternin, 2007, pp. 104-115, pp. 210-217). The core comprises the most relevant cognitive features. It shows what is the most important to a community in the mental consideration of the given concept. Respectively, the periphery zones include less relevant features. The more remote the periphery zone is from the core, the less relevant cognitive features are observed.

Apart from sorting by frequency as field zones, cognitive features in the field model are arranged as parts of image, information and interpretation components. The image includes cognitive features that represent a certain imagined object with which the concept is associated in the mind. The information component defines the concept essence. The interpretation component explains the knowledge acquired by humans who make contact with the concept essence.

The field cognitive model was used to study such concepts as SUCCESS (Hrynina, 2009); PROHIBITION (Ermolova, 2011); and NOBILITY (Kuzembaeva, 2017).

The modus model is similar to the field one although there are some differences. According to Nikitin (2007, pp. 102-110), the concept as the lexical meaning of a unit is represented as the essence (the intensional-core), which is explicated in the discourse via other features (the periphery-implicational: firm, highly probable, weak and negative). However, in the case of a prominence transition from the same conceptual structure to the intensional-implicational format, the core is not established by the same frequency in the discourse. The intensional semes provide purely a concept essence in the mind. It is the implicational features that are arranged by frequency in the discourse. The most frequent of them indicate what is the most relevant in explicating the concept intensional.

Meanwhile, Nikitin (2007, pp. 135-175) states that the concept structure is stable but may take different forms. It depends on the concept realization in the discourse where a certain set of its intensional and implicational features is activated. Namely, the same concept in different communicative situations can be converted into one of its operational subforms or modi. There may be the logical, recognizing and structuring modi.

As concept subtypes, modi can be differentiated by functions that the concept meaning reflects in the discourse (Nikitin, 2007, p. 139). The logical modus is activated when the function of systematizing the concept essence features works (the logical notion). The recognizing modus is implemented if the function of recognizing the notion essence takes place. The latter is reproduced in the mind as a stereotype, prototype, metaphor image, symbol image, etc. Finally, the last function is initiated: the notion features are structured qualitatively (within the scale “the left extremum – the norm – the right extremum”). The notion itself is transformed into a situationally engaged notion.

Separate concept modi can be obtained through different methodologies. According to Martyniuk (2010, pp. 95-96), the logical modus is acquired through dictionary definitions of concept names. Other modi are received only via their discourse analysis. Thus, the logical modus is a foundation on which changing concept realizations in the community mind are built.

The modus cognitive model was used to study such concepts as LIE (Morozova, 2006), HAPPINESS (Bratus, 2009), CELEBRITY (Martyniuk, 2010), EMPATHY (Tatsenko, 2018).

The layer model reproduces any concept as a formation whose notion is assessed from the ethno-psychological aspect. Therefore, the concept is a linguo-culturological unit of three subsequent layers: the notion, the image and the values (Prikhodko, 2013, pp. 20-30).

The notion layer reveals the denotative correlation of concept with its referent. It activates in the mind some mental associations (the image layer) as a result of perception and the intuitive or emotional consideration of information. Finally, people express a certain attitude to the referent so that the value layer is applied. The valuing process is established by relevance and assessment. The first is traced in the frequency of the concept name use in the discourse. The second is observed in the capacity of assessing features in denotative meanings. That determines what role a certain concept plays among other similar units in the community mind.

Within the layer model, the notion is stable while the image and the values are unstable. In other words, the notion separately can be regarded as a common logical entity for the whole of humanity. Meanwhile, the concept is a sort of specifically linguo-cultural notion since its assessment is constantly changing in the community mind (Prikhodko, 2013, p. 30).

The layer cognitive model was used to study such concepts as WOMAN (Paskova, 2004); ANGUISH (Vasilova, 2006); and DEED (Dordzhieva, 2010).

Therefore, the cognitive model of the concept is generated from the conceptual model of the lexical meaning of its name. Via a set of cognitive operations, the conceptual model is converted into a field, modus, layer or other cognitive model to represent the concept consideration in the community mind. This approach is reasonable in researching the ontology of the RESILIENCE concept in the American mind as well.

3. The field model of the RESILIENCE concept (research methodology)

As was mentioned above, the field model is obtained from the conceptual one after processing via cognitive operations. Thus, we should first understand how we can produce the conceptual model of RESILIENCE.

Among possible variants, there is the network format of the conceptual model. It reveals the denotative meaning (information that is activated in the mind by a lingual sign as a concept name). The obtained information is equated to the concept contents. It is visualized as a network system.

The methodology of reconstructing the network conceptual model was offered by Zhabotinskaya (2013, pp. 58-62). It is called “**the semantics of lingual networks**” (SLN). The methodology comprises the following steps:

- 1) to select the discourse research material (corpus contexts are taken where the concept name occurs);
- 2) to analyse the corpus contexts and to define logical predicates associated with the concept name;
- 3) to sort the logical predicates by the propositional schemata of the basic frames;
- 4) to generate the network conceptual model of the denotative meaning of the concept name through the propositional schemata;
- 5) to convert the network conceptual model into a cognitive one due to a certain set of cognitive operations (optionally).

The methodology is implemented thanks to the propositional schemata of the basic frames. They have the highest level of mental abstraction. There are five basic frames. The typology of their propositional schemata is given below. The examples of logical predicates (sorted by propositional schemata) are in italics. Here, we observe the logical predicates that were previously defined for the concepts of JOY (Zhabotinskaya, 2013, pp. 59-71); EMPATHY (Tatsenko, 2018, pp. 190-202); AGREEMENT (Tymochko, 2014, pp. 140-144); BUSINESSMAN (Starceva and Saprun, 2017, pp. 97-101); and FORCE / KRAFT (Stepanov, 2016, pp. 280-285). Respectively, they were sorted by the following propositional schemata of the basic frames:

- 1) **The propositional schemata of the being frame:** “SB/STH is THAT MANY-quantity” (quantitative – *multilateral agreements*), “SB/STH is SUCH-quality” (qualitative – *gentle joy*), “SB/STH is THERE-place” (locative – *empathy between nations*), “SB/STH is THEN-time” (temporative – *annual agreements*), “SB/STH exists SO-mode of being” (mode of existence – *written agreement*).
- 2) **The propositional schemata of the action frame:** “AG-agent acts” (state/process – *this agreement shall remain in force*); “AG-agent acts upon PT-patient / AF-affective” (contact – *somebody experiences joy*); “CR-causer makes FT-factitive” (causative – *the subcommittee that was established under this agreement*).

They are extended by some semantic roles: circumstance (AT-attendant, AD-aid, CG-counteragent; IN-instrument, MD-mediative – *joy out of one’s voice, with empathy we try to imagine*); stimulus (GL-goal, CS-cause – *to laugh for joy, empathy for those with physical disabilities*); prerequisite (CD-condition, CS-concession – *if a businessman suffers from indecision, he might miss business opportunities*); recipient (AD-addressee, BN-benefactor, ML-malefactor – *businessmen have some responsibilities involving personnel*).

Besides, the being frame schemata may be used for their extension as well (*after the date of entry into force of this agreement*).

- 3) **The propositional schemata of the possession frame:** “WH-whole has PR-part” (part-whole – *objectives of this agreement*); “CR-container has CT-content” (inclusion – *appendix of this agreement*); “OW-owner has OD-owned” (ownership – *somebody with empathy*).
- 4) **The propositional schemata of the identification frame:** “ID-identified is PS-personifier” (personification – *the WTO Agreement*); “ID-identified is CL-classifier” (classification – *sense of joy*); “ID-identified is CH-characterizer” (characterization – *that Agreement*).
- 5) **The propositional schemata of the comparison frame:** “CV-comparative is (as) MS-correlate” (identity / metamorphosis – *die Puruscha-Kraft*); “CV-comparative is as AN-correlate” (similarity / analogy – *angelic joy, culture of empathy*); “CV-comparative is as if MT-correlate” (likeness / metaphor – *flame of joy, masterpiece of empathy*).

The propositional schemata combine in a visual domain network. It reflects the whole denotative meaning of the concept name as information activated in the mind.

Usually, researchers apply the SLN methodology partially: only the conceptual model is obtained (the cognitive one remains a prospect for future study). Processed via cognitive operations, the same conceptual model may provide several cognitive models. For example, the JOY conceptual model by Zhabotinskaya (2013, pp. 65-71) is converted into a modus cognitive one due to the prominence operation (Langacker, 2008, pp. 66-73) within the intensional-implicational paradigm (Nikitin, 2007, pp. 102-110).

When talking about the study of the RESILIENCE concept, we should decide what cognitive model will be obtained at the final stage and how exactly it will be generated. To research the mental consideration of resilience as a social and political phenomenon, we apply the field cognitive model. This task will be accomplished through our own combined methodology. It is derived from two extrapolated techniques. Firstly, there is **the semantics of lingual networks** – the conceptual model of RESILIENCE (Zhabotinskaya, 2013, pp. 58-62). Secondly, there is **semantic-cognitive analysis** – the field cognitive model of RESILIENCE (Popova and Sternin, 2007, pp. 232-234). They are extrapolated due to two cognitive operations: cognitive interpretation and prominence. Cognitive interpretation means that the results of describing the concept name meanings are abstracted to a higher level to provide cognitive features (Popova and Sternin, 2007, pp. 198-200). The abstracted cognitive features are arranged within the concept macrostructure (the information, image and interpretation components) and contents (the core; the close, far and extreme periphery) based on the decreasing frequency in the discourse. Thus, the prominence operation is additionally engaged (Langacker, 2008, pp. 66-73).

So, from our perspective, cognitive interpretation and prominence provide a transition from the conceptual model to the field cognitive one. The extrapolation of the semantic-cognitive analysis onto the SLN methodology defines our own algorithm to reconstruct the field cognitive model of the RESILIENCE concept in the American discourse:

Stage 1. Collecting a sample of contexts of the RESILIENCE concept.

The corpus sample of contexts with the word *resilience* is generated.

Stage 2. Analysing the sample.

Each sample context is analysed to define logical predicates associated with the RESILIENCE concept.

Stage 3. Cognitive interpretation of the analysis results.

The logical predicates are thematically arranged via subtypes of the RESILIENCE propositional schemata. In other words, the logical predicates are abstracted to the sorting propositional subtypes as the cognitive features of the RESILIENCE concept.

Stage 4. Describing the concept.

All obtained propositional schemata and their sorting subtypes (the logical predicates as cognitive features) are listed. The frequency of each propositional schema in the corpus sample is established.

Stage 5. Producing the field cognitive model of the RESILIENCE concept in the American mind.

The stage is implemented in two steps.

Step 1. Describing the concept macrostructure (arranging the cognitive features quantitatively as parts of the information, image and interpretation components).

The sorting subtypes of the RESILIENCE propositional schemata are placed in the information, image and interpretation groups. Their percentage frequency within the RESILIENCE single macrostructure is measured.

Step 2. Defining the field organization of the concept cognitive features (their belonging to the core as well as the close, far and extreme periphery). Visualizing or verbalizing the field model.

By their frequency in the corpus sample, the sorting subtypes of the RESILIENCE propositional schemata are arranged in the core and periphery zones. The core comprises the most frequent sorting subtypes of the RESILIENCE propositional schemata as cognitive features. The extreme periphery includes the least frequent ones. The grouped cognitive features are listed in decreasing order (the concept verbal form).

Stage 6. Concluding the field cognitive model.

The constructed field model of the RESILIENCE concept is discussed. Its macrostructure and contents are analysed to define what is most important for Americans in considering RESILIENCE as a socially relevant phenomenon.

4. The principles of selecting the research material (the corpus sample)

As human consciousness in the lingual form, discourse can be researched via its mini-patterns. Within them, texts or their fragments show the same communicational aspects of the community. In other words, corpora are engaged.

A corpus is a set of texts selected for a certain research purpose (Baker, Hardie and McEnery, 2006, p. 15, pp. 48-49). Its key compiling rules are representativeness, electronic format, annotation and software support.

The main rule is **representativeness** – the corpus ability to be a discourse mini-model that is similar to real communication as much as possible. In particular, texts are selected according to the following criteria (Flowerdew, 2004, pp. 11-33; Koester, 2010, pp. 66-79):

- 1) the topic of study (what the texts will be used for; which language variety, style and discourse they concern);
- 2) the features of communication participants (their age, sex, occupation, language competence, place of birth and residence, etc.).

In such a way, researchers collect and record the necessary texts. There must be a preliminary permission of speakers to apply and distribute their utterances. Besides, any personal data have to be removed or changed except for those in public texts (Hunston, 2008, pp. 157-160; McEnery and Hardie, 2012, pp. 154-168). Then, the text set is digitalized, namely converted electronically.

Electronic format is an integral part of corpora because only digital data can be processed. Digitalization is possible due to text scanning, printing and editing (Sinclair, 1991, p. 14; Nelson, 2010, pp. 62-63).

Further, the texts are encoded. For this aim, the *Notepad* application is reasonable. The texts are saved as *txt* files within UTF-8 code (Reppen, 2010, pp. 32-35).

The next step is **annotation**. The texts are subdivided into logical units (sentences, paragraphs, etc.) and marked with indication of linguistic and extralinguistic phenomena (Reppen, 2010, pp. 35-36; McEnery and Hardie, 2012, pp. 29-35). The linguistic marks describe in the texts the semantical, grammatical and syntactical features as their verbal aspect. They also explain in the texts the phonetic (intonation, pauses and accent), kinetic (gestures, pose, facial expression) and graphical (handwriting) features as their non-verbal aspect. The extralinguistic marks provide metadata with reference to the speech author. The data are indicated in each text or in a separate file with information about all texts.

Some researchers regard the linguistic marks in corpus texts as optional. According to Sinclair (1991, p. 21) and Nelson (2010, p. 63), it is representativeness of texts that is a top priority. One should pay attention to who produced the texts rather than how exactly they behaved in speaking and produced the texts themselves. Therefore, the extralinguistic marks are obligatory for corpora while the linguistic ones may be omitted.

The encoded and annotated corpus is ready for research. Finally, we should select **software** to process the corpus resources. In particular, we select a corpus manager.

The corpus manager is an application with tools for searching units in corpora. It generates a concordance – a list of all contexts where the searched unit is found (Baker, Hardie and McEnery, 2006, pp. 42-44). The corpus manager can be a separate application to work with manually compiled corpora. An example is the *AntConc* application by Anthony (the link to download:

<https://www.laurenceanthony.net/software.html>). Meanwhile, there are some web services to produce concordances as well. The examples are web sites of some national corpora: *The British National Corpus* (<https://www.english-corpora.org/bnc/>), or *The Corpus of Contemporary American English* (<https://www.english-corpora.org/coca/>).

Thus, to research the RESILIENCE concept, we should define the corpus sample of contexts with its name. Currently, there are many existing corpora. There is a question: what corpus should be selected to create a sample for our study? From our point of view, the following selection principles should be focused on:

- 1) **The language of concept research.** We are going to study the RESILIENCE concept within the English language. Therefore, only English corpora are taken into account.
- 2) **The high degree of corpus ranking.** When selecting English corpora, only those should be chosen that are highly appreciated among researchers. From this perspective, *The British National Corpus (BNC)* and *The Corpus of Contemporary American English (COCA)* are chosen.
- 3) **The language and discourse varieties, the genre of texts, their creation time.** We will study the field cognitive model of the RESILIENCE concept in the American community. Our discourse is academic and journalistic. Also, it is modern. The COCA corpus represents the American English variety. As of 2022, its total lexeme inventory comprises more than 1 billion words in over 485,000 texts created during 1990-2022. For each year, 20-25 million words are evenly distributed in the texts. There are different genres: colloquial, fiction, journalistic, academic, etc.
- 4) **The degree of resource updating.** To reconstruct the conceptual and cognitive models of RESILIENCE as accurately as possible, the latest version of a corpus is needed. The COCA corpus updates annually. Consequently, it is relevant to creating our sample.

Detailed information on research possibilities with the COCA corpus can be found in an article by Davies (2009).

We will make our sample from the COCA corpus. Our reconstruction of the RESILIENCE concept must be unbiased. Thus, contexts with the word *resilience* will be chosen via **random sampling**.

The COCA corpus website (<https://www.english-corpora.org/coca/>) produced a concordance of contexts with the word *resilience* (date of request: 15 July 2022). Among all the 4,145 hits, we selected a random sample of 150 contexts. According to the COCA metadata, they derived from 77 sources (academic and journalistic articles).

This COCA sample was used to generate the field cognitive model of the RESILIENCE concept in the American community mind.

5. The propositional schemata of RESILIENCE in the corpus sample

The sample contexts were processed. We analysed the adjacent and non-adjacent collocations of the *resilience* lexeme (the dashed line) concerning other context words (the wavy line). The logical predicates of RESILIENCE were acquired. They were thematically sorted according to 17 propositional schemata of the basic frames. Below, we indicate all the schemata with their sorting subtypes. In the square brackets, we indicate the number of contexts where the schemata are realized (their frequency). The schemata are followed with some illustrating contexts where they have been detected. In the round brackets, the exact number of *resilience* contexts is mentioned (within the whole 4,145-hit concordance in the COCA corpus).

1) **The possession ownership schema** “OW-human / group has OD-RESILIENCE” [86]: **1. owner = human** [22]; **2. hierarchical group of humans** [64] – **system** [4]; **family / team** [2]; **staff** [1]; **age group** [9]; **social class** [17]; **community** [3]; **nation** [9]; **society** [13]; **humanity** [6].

- (1) *In the event that calamities strike, it would mitigate their effects by enhancing **personal** and **social resilience** and preparedness* (COCA, resilience, 2129).
- (2) *I learned many lessons, but what sticks out in my mind most often is the creativity and **resilience** of the **human spirit*** (COCA, resilience, 37).

- (3) *Additionally, **children and youth's resilience** in face of distressing and violent circumstances warrants further research* (COCA, resilience, 1187).

2) **The identification classification schema** “ID-RESILIENCE is CL-classifier / class” [64]: **1. class = idea** [11]; **2. skills / resources** [5]; **3. sphere** [3]; **4. centre** [1]; **5. component** [1]; **6. factor of actions** [24]; **7. action / plan of action** [16]; **8. purpose** [1]; **9. agreement** [2].

- (4) *Employing the **idea** of social **resilience** provides a bridge to examining environmental impacts by focusing on the role migration plays in altering household livelihood strategies* (COCA, resilience, 3655).

- (5) *The **concept** of **resilience** has two dimensions: the inherent **strength** of an entity (an individual, a household, a community or a larger structure) to resist stress and shock better and the **capacity** of this entity to bounce back rapidly from the impact* (COCA, resilience, 15).

3) **The identification personification schema** “ID-RESILIENCE is PS-personifier (proper name)” [5]: **1. personifier = name of work / publication / document** [3]; **2. name of organization** [1]; **3. name of idea** [1].

- (6) *We just began a coalition with the **Stockholm Resilience Centre**, where a group of 28 scientists identified and quantified a set of nine planetary boundaries within which humanity can continue to develop and thrive* (COCA, resilience, 43).

- (7) *The genius behind what the Institute staff did to relate all of these was to generate potentials for actions by adding a third dimension to the discussion in the form of motivations: **Happiness, Resilience** and **Legacy*** (COCA, resilience, 47).

4) **The comparison metaphor schema** “CV-RESILIENCE is as if MT-correlate” [526]: **1. correlate = human** [79]; **2. opponent** [14]; **3. force** [14]; **4. physical body** [13]; **5. varying object** [49]; **6. complex object** [5]; **7. thing** [2]; **8. detail** [2]; **9. moving object** [1]; **10. tool** [11]; **11. machine** [1]; **12. branch** [30]; **13. place** [14]; **14. action** [2]; **15. container** [7]; **16. contents** [64]; **17. product** [33]; **18. interacting object** [11]; **19. controlled object** [1]; **20. protected object** [3]; **21. possessed object** [63]; **22. analysed object** [44]; **23. imagined object** [19]; **24. perceived object** [5]; **25. felt object** [3]; **26. shown object** [16]; **27. admired object** [8]; **28. skills** [7]; **29. need** [3]; **30. agreement** [2].

- (8) *The Center for Disease Control and Prevention now requires a set of capabilities in the **area** of community preparedness and **resilience*** (COCA, resilience, 1696).

- (9) *This is the time for falling in and out of infatuations, for experiencing loss and disappointments, for learning how to accommodate to many different personality types. From all this, we **develop** flexibility and social **resilience*** (COCA, resilience, 2783).

- (10) *Shauna, I **admire** your enormous **resilience** of character and personal resourcefulness in becoming an attorney and raising your daughter* (COCA, resilience, 2).

5) **The being locative schema** “RESILIENCE is THERE-place” [134]: **1. place = human and his behaviour** [4]; **2. social unit** [122] – family / team [11]; community [23]; public organization / company [10]; international organization [3]; social class [11]; industry [2]; government [2]; territory [7]; administrative unit [18]; country / nation / people [25]; continent / part of world [6]; humanity [4]; **3. natural unit** [8] – population [1]; ecosystem [4]; environment [3].

- (11) *Questions have to be asked about the nature of social **resilience**, the terms on which social structure is maintained and its consequences for different individuals and households in the **community*** (COCA, resilience, 3640).

- (12) *A successful Asia strategy is impossible without a strong alliance with **Japan**. Japan's location makes it essential to any U.S. military operation in Asia. **Its** strength and **resilience** make it a reliable partner* (COCA, resilience, 33).
- (13) *CDKN and FFLA will lead a high level debate on the climate security agenda in the Amazon and worldwide, focusing on ways in which Climate Compatible Development can reduce the threats that climate change poses on water, energy, food security and **ecosystems resilience*** (COCA, resilience, 621).

6) **The being temporative schema** “RESILIENCE is THEN-time” [65]: 1. time = date [1]; 2. moment / situation [36]; 3. period [11]; 4. present [8]; 5. past [3]; 6. future [4]; 7. eternity [2].

(14) *We hope that by bringing New Jersey history front and center we can help inspire local communities to rebuild by celebrating the incredible **resilience** and perseverance that made New Jersey what it is **today*** (COCA, resilience, 22).

(15) *I mean the amazing thing about the Congolese people is their degree of **resilience** and that they have been through this kind of stuff **in the past*** (COCA, resilience, 58).

(16) *Today, Commissioner for Development and Commissioner for Humanitarian Aid, International Cooperation and Crisis Response proposed a new policy to help vulnerable communities across the world build **resilience** to **future crises*** (COCA, resilience, 8).

7) **The being qualitative schema** “RESILIENCE is SUCH-quality” [82]:
Type as quality [42]: 1. type = governing principle / ideology [2]; 2. branch of implementations [40] – social sphere [21]; psychological sphere [6]; culturology [3]; economy [3]; geography [1]; ecology [6];
Assessment as quality [17];
Scope of effect [11];
Force of effect [11];
Degree of importance [1].

(17) *Thinking about how to innovate in our next century, we will pursue Rockefeller's goal of bettering humankind by building **greater economic, environmental and social resilience** and by expanding economic opportunities for more people in more places* (COCA, resilience, 758).

(18) *What has been called **authoritarian resilience** turned out to be **less impressive** after all, and the popular hatred of those regimes much greater* (COCA, resilience, 703).

(19) *The enthusiasm in the Black community was very high and the **resilience** of people at numerous voting precincts was **irrepressible*** (COCA, resilience, 26).

8) **The being quantitative schema** “RESILIENCE is THAT MANY-quantity” [4]: 1. quantity = nothing [1]; 2. some [3].

(20) *Southeast Asia's largest economy, Indonesia, has exhibited **some** of the strongest **resilience** as its growing consumer class was little impacted by the debt problems plaguing much of the rest of the globe* (COCA, resilience, 55).

(21) *Just as there is no universal experience of displacement, there is also **no** universal women's experience of **resilience** and resistance in face of discriminatory practices and victimizing narratives surrounding their lives in the camps, detention centers and urban settings* (COCA, resilience, 1184).

9) **The action state/process schema** <1> + **mode** “AG- RESILIENCE progresses SO-mode” [42]: 1. mode = state [1]; 2. better development and changes [34]; 3. worse development and changes [7].

- (22) *Migration has a potential to **enhance** social **resilience** by providing new opportunities and experiences. It also has an ability to **diminish resilience** by weakening social structures and access to natural resources* (COCA, resilience, 3628 and 3629).
- (23) *If patterns of climate change are understood in the same way as the hurricane history chart in that they create repeated perturbations, then **increasing** societal **resilience** is one policy goal that addresses both climate change and natural hazards* (COCA, resilience, 3134).
- (24) *In face of significant external stress, population displacement often indicates the **breakdown** of social **resilience*** (COCA, resilience, 3643).

10) **The action contact schema <2> + attendant** “AG-human analyses PT- RESILIENCE with AT-attendant” [100]: **1. attendant = critically neutral attitude** [72]; **2. positive attitude** [19]; **3. optimistic attitude** [4]; **4. pessimistic attitude** [4]; **5. alternative attitude** [1].

- (25) *Ultimately, he **defines** social **resilience** as the ability of communities to withstand external shocks to their social infrastructure* (COCA, resilience, 945).
- (26) *I still miss Hong Kong. I **miss** the energy, people’s **resilience** and the “can do” mentality that tend to ignore the usual steps of whining, whinging and complaining when dealing with adversities* (COCA, resilience, 28).
- (27) *Affleck **praised** the Congolese people **for** their **resilience** and added that our foreign policy as a country, as he sees it, should represent our values* (COCA, resilience, 57).

11) **The action contact schema <2> + mediative** “AG-human analyses PT-RESILIENCE through MD-mediative” [123]: **1. mediative = certain case** [29]; **2. somebody’s point of view** [38]; **3. methodology / product** [11]; **4. scientific works and research** [22]; **5. document / organization** [15]; **6. archaeological / historical items** [4]; **7. work of art** [4].

- (28) ***A case study of Vietnam**, where social **resilience** is determined by migration as well as by wider social and political transformations, illustrates these issues* (COCA, resilience, 3634).
- (29) ***The book “The Resilient Gardener” by Carol Deppe** got me thinking about **resilience** not just in our gardens but in ourselves too, the internal motivation we have, the less likely we are to be brought down by outside events* (COCA, resilience, 60).
- (30) *San Francisco’s Public Utilities Commission is in the middle of a \$4.6 billion **Water System Improvement Plan**, adding safeguards and backups and improving the seismic **resilience** of its pipelines to make the Bay Area’s water supply more reliable* (COCA, resilience, 25).
- (31) *With Hoagland’s trademark humor and social commentary, these **poems** are exhilarating for their fierce moral curiosity, their desire to name the truth and their celebration of **resilience** of human nature* (COCA, resilience, 632).

12) **The action contact schema <2> + instrument** “AG-human analyses PT-RESILIENCE with IN-instrument” [194]:

instrument = science [162]: **1. economics and business** [44]; **2. sociology, politology, law** [20]; **3. history** [5]; **4. philosophy** [5]; **5. demography** [14]; **6. geography** [8]; **7. ecology** [15]; **8. biology** [2]; **9. medicine and sports** [6]; **10. psychology** [29]; **11. culturology** [9]; **12. military science** [4]; **13. civil defence** [1].

instrument = comparison [32]: **1. economics and business as an instrument for comparison** [3]; **2. sociology, politology, law as an instrument for comparison** [3]; **3. demography as an instrument for comparison** [1]; **4. psychology as an instrument for comparison** [4]; **5. ecology as an instrument for comparison** [1]; **6. pedagogy as an instrument for comparison** [2]; **7. medicine and sports as an instrument for comparison** [1]; **8. experience as an instrument for comparison** [3]; **9. realization**

possibilities as an instrument for comparison [3]; **10. implementation result as an instrument for comparison** [5]; **11. other type of resilience as an instrument for comparison** [6].

(32) *The **resilience** concept provides insight into how different **types of migration in Vietnam** contribute or undermine social resilience and also how they impact lifestyle and environmental change* (COCA, resilience, 3656).

(33) *Strengthening **resilience** is **at the core of successful humanitarian and development policies*** (COCA, resilience, 10).

(34) *He notes that social **resilience** is **a key component in how societies adapt to environmental change** and recognizes the central connection of ecological and social **resilience through human dependence on ecosystems*** (COCA, resilience, 943 and 944).

(35) *I learned **many lessons**, but what sticks out in my mind most often is the creativity and **resilience** of the human spirit* (COCA, resilience, 37).

(36) *Neil Adger’s work examines relationship between **ecological** and **social resilience*** (COCA, resilience, 942).

(37) *Affleck praised the Congolese people for their **resilience** and added that **our foreign policy** as a country, as he sees it, should represent our values* (COCA, resilience, 57).

13) **The action schema <3>** “AG/CR-human / event acts upon PT-RESILIENCE / makes FT-RESILIENCE (result)” [10]: **1. result = emergence of changes** [2]; **2. better situation / state** [4]; **3. worse situation / state** [4].

(38) *The resilience concept provides insight into **how different types of migration in Vietnam contribute** or **undermine** social **resilience** and also how they impact lifestyle and environmental change* (COCA, resilience, 3657).

(39) ***Migration has a potential to enhance** social **resilience** by providing new opportunities and experiences. **It also has the ability to diminish resilience** by weakening social structures and access to natural resources* (COCA, resilience, 3628 and 3629).

14) **The action schema <3> + instrument** “AG/CR-human / event acts upon PT-RESILIENCE / makes FT-RESILIENCE (result) with IN-instrument” [52]: **1. instrument = approach** [40]; **2. providing resources / opportunities** [4]; **3. demographic transformations** [1]; **4. informational work** [2]; **5. psychological influence** [4]; **6. ecologic influence** [1].

(40) *Circular migration enhances social **resilience** of households by **diversifying livelihoods** and **encouraging investment in resources*** (COCA, resilience, 3632).

(41) *This is the time for **falling in and out of infatuations**, for **experiencing loss and disappointments**, for **learning how to accommodate** to many different personality types. **From all this**, we develop flexibility and social **resilience*** (COCA, resilience, 2783).

(42) ***The decline in migration** may become a means for enhancing community **resilience**; as external forces reduce internal migration, people in marginal communities may see rootedness as a strategy for resisting the ravaging effects of globalization* (COCA, resilience, 1176).

15) **The action schema <3> + goal** “AG/CR-human / event acts upon PT-RESILIENCE / makes FT-RESILIENCE (result) with GL-goal” [35]: **goal = better living conditions / better psychological state** [35].

(43) ***Resilience** is the ability of an individual, a household, a community, a country or a region **to***

withstand, to adapt and to recover from stresses and shocks quickly (COCA, resilience, 14).

(44) *The concept of resilience has two dimensions: the inherent strength of an entity (an individual, a household, a community or a larger structure) to resist stress and shock better and the capacity of this entity to bounce back rapidly from the impact* (COCA, resilience, 15).

(45) *Earth abides. We need to preserve resilience and integrity of the biosphere we live in to enhance our own survival prospects* (COCA, resilience, 319).

16) **The action schema <4>** “AG/CR-RESILIENCE acts upon PT-human / makes FT-event / state (result)” [33]: **1. result = better psychological state** [7]; **2. better living conditions** [22]; **3. worse living conditions** [1]; **4. more resources and opportunities** [2]; **5. demographic changes** [1].

(46) *This type of play also helps children develop resilience by allowing them to use their imagination to deal with and recover from challenges. For example, they conquer fear by becoming superheroes and use creativity to derive solutions* (COCA, resilience, 638).

(47) *Local governments, in concert with community leaders, must get out into the communities, provide multilingual support and programs and demonstrate how community resilience greatly enhances daily living* (COCA, resilience, 697).

(48) *Resilience plays a significant role in determining thresholds between impairment and disability, hazards and disasters* (COCA, resilience, 1086).

17) **The action schema <5> + instrument** “AG/CR-human / event acts upon PT-event / makes FT-event / state (result) with IN-RESILIENCE” [47]: **1. result = better living conditions** [34]; **2. personal achievements** [13].

(49) *That is why the movement survives and blossoms, defying all odds and overcoming difficulties through the resilience and dedication of the Ogaden people’s selfless sacrifices and heroism* (COCA, resilience, 1).

(50) *Shauna, I admire your enormous resilience of character and personal resourcefulness in becoming an attorney and raising your daughter* (COCA, resilience, 2).

(51) *EU puts resilience at the heart of its work on fighting hunger and poverty* (COCA, resilience, 7).

Totally within the sample of 150 COCA contexts, there are 1602 cases of realizing the logical predicates that are sorted out by 17 propositional schemata of RESILIENCE.

6. The network conceptual model of RESILIENCE in the American mind

Seventeen propositional schemata are visualized as the graphical network of RESILIENCE. It is activated by the word *resilience* as information in the American mind (Figure 1).

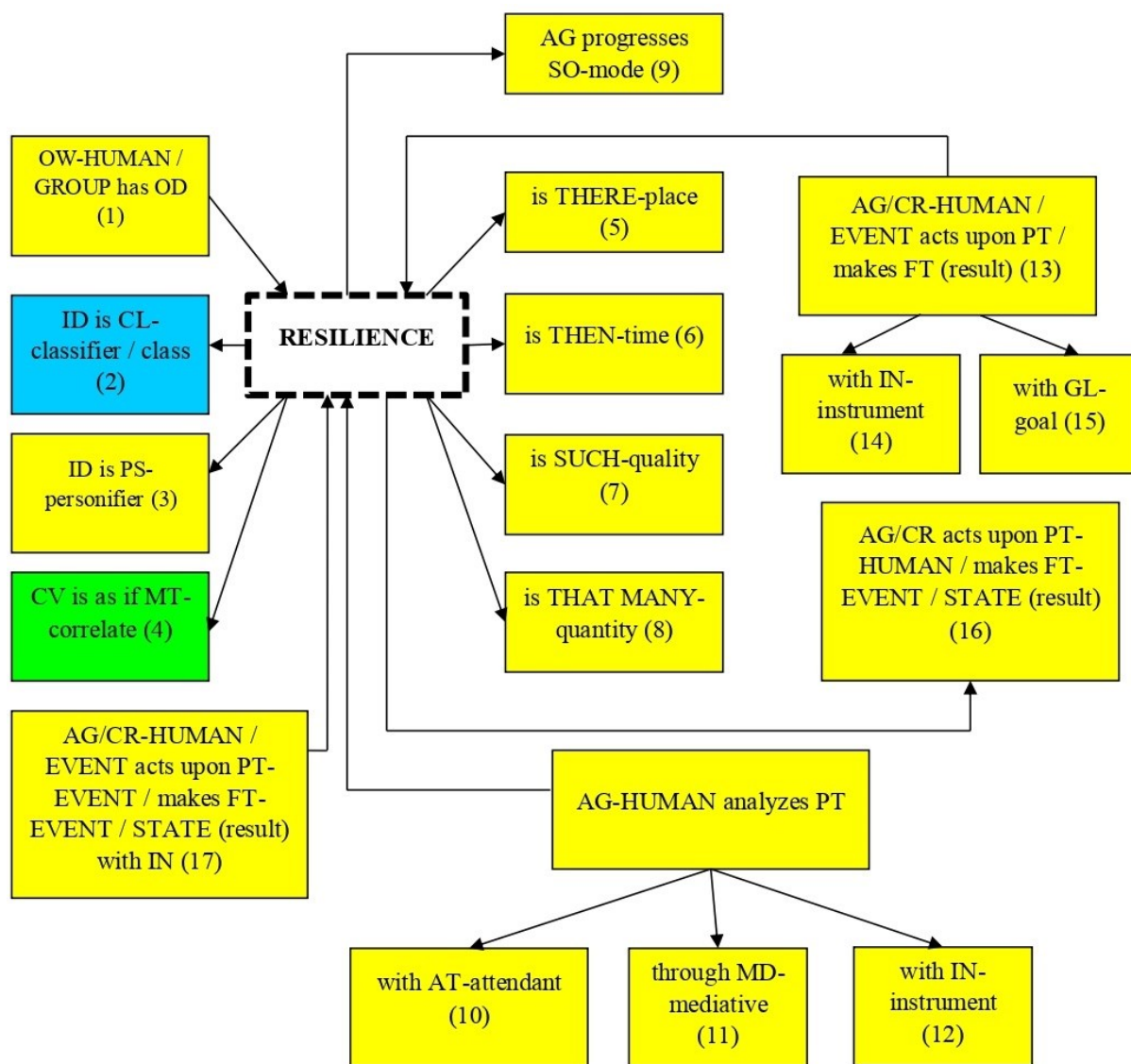


Figure 1. The network conceptual model of RESILIENCE

The network conceptual model was interpreted. This resulted in the general contents of the concept RESILIENCE as **the denotative meaning** of the *resilience* noun:

RESILIENCE is a human quality and property.

It belongs to a certain class. Thus, RESILIENCE is classified as an idea, skills or resources, a sphere, a center, a component, a factor of actions, an action or a plan of action, a purpose and an agreement.

RESILIENCE may be personified. It can refer to something (in such a way, names of organizations, ideas or methodologies, works, publications and documents are created). RESILIENCE is metaphorized. Subsequently, it is compared with humans, forces, varying objects, containers or contents, possessed or analysed objects, etc.

RESILIENCE exists in a certain place. It may be situated within a human soul or social (from family / team to humanity) and natural (from population to environment) loci. The RESILIENCE existence is conditioned by time as well: a date, a moment or a situation, periods (past, present, future), etc.

There are some qualitative characteristics of RESILIENCE. They differ in assessment, scope or force of effect, degree of importance, and typological aspects.

RESILIENCE can be counted: from zero to infinity. In a certain manner (mode), it may progress and develop with better or worse changes.

Humans analyse RESILIENCE. This process is accompanied by an attitude: critically neutral, positive, optimistic, pessimistic, alternative.

RESILIENCE is analysed via written and oral sources (cases, points of view, methodologies, works and research papers, documents, archaeological or historical items, etc.). As analysis tools, some scientific paradigms or comparison methods can be applied.

People and events act upon RESILIENCE or produce some results in it. These results deal with changes, better or worse developments.

Influence over RESILIENCE is possible due to specific instruments (approaches, resources, opportunities, demographic transformations, etc.). It is aimed at a purpose (better living conditions or a better psychological state).

On the other hand, RESILIENCE itself can act upon humans or cause some consequences as well. They lead to a better psychological state, better or worse living conditions. They may provide people with more resources and opportunities. Demographic changes can appear.

Meanwhile, RESILIENCE is used as a tool to perform something: to improve welfare, to enable personal achievements.

7. The field cognitive model of RESILIENCE in the American mind

The generated denotative meaning of the RESILIENCE conceptual model is processed via cognitive operations (cognitive interpretation and prominence). Consequently, we obtain the field cognitive model of RESILIENCE in the American mind. Let us observe its macrostructure and division into field zones.

7.1 The macrostructure of the RESILIENCE concept

The image component represents a mental object with which the concept is associated in the human consciousness. It is a reconsideration by means of other concepts that produces mental images. Subsequently, conceptual metaphors as images are acquired (Lakoff and Johnson, 1980).

Among the generated propositional schemata of RESILIENCE, conceptual metaphors are observed in the comparison metaphor schema “CV-RESILIENCE is as if MT-correlate” (526 cases).

Therefore, the image component comprises 526 of all 1602 cases in the corpus sample (32.8% of 100%). In Figure 1, it is marked in **green**.

The information component reveals the essence of the actualized phenomenon, its belonging to a certain class. Within all 17 propositional schemata, we detect the RESILIENCE essence in the identification classification schema “ID-RESILIENCE is CL-classifier / class” (64 cases).

Thus, the information component comprises 64 of all 1602 cases in the corpus sample (4% of 100%). In Figure 1, it is marked in **blue**.

The interpretation component derives from the information one. Its cognitive features explain and assess the information component. Consequently, humans derive some experience concerning the concept itself. The interpretation component is subdivided into several sectors: assessing, encyclopaedic, utilitarian, social-cultural, regulating and paremiological. They are also inherent in the RESILIENCE concept. The sorting subtypes of 17 propositional schemata should be arranged respectively.

a) The assessing sector (the general assessment of the essence). The RESILIENCE assessment is traced in the being qualitative schema “RESILIENCE is SUCH-quality”. Especially, this deals with its sorting subtypes “assessment as quality (17 cases); scope of effect (11 cases); force of effect (11 cases); degree of importance (1 case)”.

In total, there are 40 of all 1602 cases in the corpus sample (2.5% of 100%).

b) The encyclopaedic sector (the consideration of the essence as an independent performer of actions). The RESILIENCE independent activity is covered by the propositional schemata of two frames – the being and action ones.

The being encyclopaedic schemata reproduce the RESILIENCE activity from space, time and quantity perspectives:

- 1) “RESILIENCE is THERE-place” (134 cases);
- 2) “RESILIENCE is THEN-time” (65 cases);
- 3) “RESILIENCE is THAT MANY-quantity” (4 cases).

The action encyclopaedic schemata describe the resilience evolution in society:

- 1) “AG-RESILIENCE progresses SO-mode” (42 cases).

The RESILIENCE activity is regarded not only as evolution but also as its ability to affect humans or cause events and consequences. This is demonstrated by the action schema “AG/CR-RESILIENCE acts upon PT-human / makes FT-event / state (result)” (33 cases).

Totally, there are 278 of all 1602 cases in the corpus sample (17.35% of 100%).

c) The utilitarian sector (the pragmatic consideration of the essence). Here, we include human contacts with RESILIENCE from the practical point of view. The utility is found in the possession, action and being schemata.

RESILIENCE is treated as a controlled and owned thing. There is the possession ownership schema “OW-human / group has OD-RESILIENCE” (86 cases).

Under control, RESILIENCE is intentionally influenced by people so that consequences occur. Three action schemata are activated:

- 1) “AG/CR-human / event acts upon PT-RESILIENCE / makes FT-RESILIENCE (result)” (10 cases);
- 2) “AG/CR-human / event acts upon PT-RESILIENCE / makes FT-RESILIENCE (result) with IN-instrument” (52 cases);
- 3) “AG/CR-human / event acts upon PT-RESILIENCE / makes FT-RESILIENCE (result) with GL-goal” (35 cases).

Besides, people practically apply RESILIENCE as a means to achieve some results. The action schema “AG/CR-human / event acts upon PT-event / makes FT-event / state (result) with IN-RESILIENCE” (47 cases) is initiated.

Interacting, humans classify RESILIENCE as to their own pragmatic needs. The being schema “RESILIENCE is SUCH-quality: type as quality” (42 cases) takes place.

Simultaneously, the RESILIENCE utility consists in people’s analysing the political and social spheres intentionally with certain conclusions. Three action contact schemata are activated:

- 1) “AG-human analyses PT-RESILIENCE with AT-attendant” (100 cases);
- 2) “AG-human analyses PT-RESILIENCE through MD-mediative” (123 cases);
- 3) “AG-human analyses PT-RESILIENCE with IN-instrument” (194 cases).

In total, there are 689 of all 1602 cases in the corpus sample (43% of 100%).

d) The social-cultural sector (the consideration of the essence concerning national culture and everyday life). Society not only bears the heritage of customs but also a spiritual and research experience. In other words, some written works are implied. This is observed in the identification personification schema “ID-RESILIENCE is PS-personifier (proper name)” (5 cases).

In total, there are 5 of all 1602 cases in the corpus sample (0.31% of 100%).

e) The regulating and paremiological sectors. The regulating sector is not detected in the RESILIENCE macrostructure: there are no logical predicates that instruct what to do with the concept essence. The same concerns the paremiological sector.

Therefore, the interpretation component of the RESILIENCE concept comprises four sectors. In total, there are 1012 of all 1602 cases in the corpus sample (63.2% of 100%). In Figure 1, it is marked in **yellow**.

The general percentage composition of the RESILIENCE macrostructure is 32.8% (the image component), 4% (the information component) and 63.2% (the interpretation component).

7.2 Remarks to the defined propositional schemata

It was stated above that the sorting subtypes of the propositional schemata are regarded as logical predicates and subsequently as cognitive features. However, Popova and Sternin (2007, pp. 127-142) argue that the cognitive features in the concept contents can be interpreted into higher abstracting levels. They are called classifying cognitive features.

Concerning the RESILIENCE concept, the sorting subtypes of 17 propositional schemata are the cognitive features. Thus, the 17 propositional schemata themselves are classifying cognitive

features (because the logical predicates are arranged within them). These 17 schemata as the classifying cognitive features can be grouped by decreasing frequency in the corpus sample:

- 1) “CV-RESILIENCE is as if MT-correlate” [526];
- 2) “AG-human analyses PT-RESILIENCE with IN-instrument” [194];
- 3) “RESILIENCE is THERE-place” [134];
- 4) “AG-human analyses PT-RESILIENCE through MD-mediative” [123];
- 5) “AG-human analyses PT-RESILIENCE with AT-attendant” [100];
- 6) “OW-human / group has OD-RESILIENCE” [86];
- 7) “RESILIENCE is SUCH-quality” [82];
- 8) “RESILIENCE is THEN-time” [65];
- 9) “ID-RESILIENCE is CL-classifier / class” [64];
- 10) “AG/CR-human / event acts upon PT-RESILIENCE / makes FT-RESILIENCE (result) with IN-instrument” [52];
- 11) “AG/CR-human / event acts upon PT-event / makes FT-event / state (result) with IN-RESILIENCE” [47];
- 12) “AG-RESILIENCE progresses SO-mode” [42];
- 13) “AG/CR-human / event acts upon PT-RESILIENCE / makes FT-RESILIENCE (result) with GL-goal” [35];
- 14) “AG/CR-RESILIENCE acts upon PT-human / makes FT-event / state (result)” [33];
- 15) “AG/CR-human / event acts upon PT-RESILIENCE / makes FT-RESILIENCE (result)” [10];
- 16) “ID-RESILIENCE is PS-personifier (proper name)” [5];
- 17) “RESILIENCE is THAT MANY-quantity” [4].

In total: 1602 cases.

It is worth saying that there are some mini-classifying sublevels within the propositional schemata as classifying cognitive features. Inside them, there are subtypes of sorting the RESILIENCE logical predicates as cognitive features themselves. Among the special examples of such mini-classifying sublevels, we detect these in two schemata.

- 1) “AG-human analyses PT-RESILIENCE with IN-instrument”:
 - sublevel A: science (1. economics and business; 2. sociology, politology, law; 3. history; 4. philosophy; 5. demography; 6. geography; 7. ecology; 8. biology; 9. medicine and sports; 10. psychology; 11. culturology; 12. military science; 13. civil defence);
 - sublevel B: comparison (1. economics and business; 2. sociology, politology, law; 3. demography; 4. psychology; 5. ecology; 6. pedagogy; 7. medicine and sports; 8. experience; 9. realization possibilities; 10. implementation result; 11. other type of resilience).
- 2) “RESILIENCE is SUCH-quality”:
 - sublevel A: type as quality (1. governing principle / ideology; 2. branch of implementations – 2.1. social sphere; 2.2. psychological sphere; 2.3. culturology; 2.4. economy; 2.5. geography; 2.6. ecology);
 - sublevel B: assessment as quality;
 - sublevel C: scope of effect;
 - sublevel D: force of effect;
 - sublevel E: degree of importance.

For the first schema, the mini-classifying cognitive features are sublevels A and B. Within them, separate cognitive features as instruments are used. Although they are different, we abstract them into one whole – science.

The same happens with sublevel A of the second schema. There is a common mini-classifying cognitive feature “type as quality”. Within it, there are some separate different types of RESILIENCE as the cognitive features themselves (governing principle / ideology, branch of implementations).

Meanwhile, when we sort the logical predicates in the propositional schemata, we observe some other cases. In particular, cognitive features themselves may become the micro-classifiers of the RESILIENCE concept. For example, the latter is found in sublevel A of the schema “RESILIENCE is

SUCH-quality”. The cognitive feature “branch of implementations” combines separate specific units: social sphere, psychological sphere, culturology, economy, geography, ecology. The same is traced in the possession ownership schema (“owner = hierarchical group of humans”), and the being locative schema (“place = social unit”, “place = natural unit”).

Finally, the propositional schemata as classifying cognitive features may be further abstracted into the so-called “super-classifying cognitive features” of the RESILIENCE concept. Accepting the idea by Zhabotinskaya (2013, p. 59) about the propositional schemata of five basic frames as patterns of the highest mental abstraction, we generalize 17 propositional schemata into 5 super-classifying cognitive features: the being, action, possession, identification and comparison frames. Below, we indicate this super-classification of the RESILIENCE contents (based on decreasing frequency in the corpus sample):

- 1) **the action frame:** 636 of 1602 (39.7% of 100%);
- 2) **the comparison frame:** 526 of 1602 (32.8% of 100%);
- 3) **the being frame:** 285 of 1602 (17.8% of 100%);
- 4) **the possession frame:** 86 of 1602 (5.4% of 100%);
- 5) **the identification frame:** 69 of 1602 (4.3% of 100%).

7.3 The field organization of the RESILIENCE concept (the core and the periphery)

The defined cognitive features (the subtypes of sorting logical predicates in 17 propositional schemata) are arranged by decreasing frequency. This produces the core as well as the close, far and extreme periphery of the RESILIENCE concept.

Within all propositional schemata, the highest frequency is detected for the cognitive feature “place = social unit” [122]. The least frequency is 1 (for example, that of the features “quantity = nothing”, “correlate = machine”, etc.). Consequently, to arrange the field organization of the RESILIENCE concept in the American mind, we accept the following idea of the decreasing frequency of the cognitive features among the concept fields:

- a) core: 60-122 cases;
- b) close periphery: 30-60 cases;
- c) far periphery: 10-30 cases;
- d) extreme periphery: 1-10 cases.

Table 2 demonstrates the RESILIENCE cognitive features in the core and periphery fields. The round brackets stand for the number of a certain propositional schema (Figure 1). The square brackets reveal the frequency of the cognitive feature among all 1602 logical predicates in the corpus sample.

Table 2. The field organization of the RESILIENCE concept

The core
<p>1. place = social unit (5) [122]; 2. correlate = human (4) [79]; 3. attendant = critically-neutral attitude (10) [72]; 4. owner = hierarchical group of humans (1) [64]; 5. correlate = contents (4) [64]; 6. correlate = possessed object (4) [63].</p> <p>TOTAL: 464 of 1602 (29% of 100%)</p>
The close periphery
<p>1. correlate = varying object (4) [49]; 2. economics and business as an analysing instrument (12) [44]; 3. correlate = analysed object (4) [44]; 4. instrument = approach (14) [40]; 5. type = branch of implementations (7) [40]; 6. mediative = somebody’s point of view (11) [38]; 7. time = moment / situation (6) [36]; 8. goal = better living conditions / better psychological state (15) [35]; 9. mode = better development and changes (9) [34]; 10. result = better living conditions (17) [34]; 11. correlate = product (4) [33]; 12. correlate = branch (4) [30].</p> <p>TOTAL: 457 of 1602 (28.5% of 100%)</p>

The far periphery

1. psychology as an analysing instrument (12) [29]; 2. mediative = certain case (11) [29]; 3. class = factor of actions (2) [24]; 4. mediative = scientific works and research (11) [22]; 5. results = better living conditions (16) [22]; 6. owner = human (1) [22]; 7. sociology, politology, law as an analysing instrument (12) [20]; 8. correlate = imagined object (4) [19]; 9. attendant = positive attitude (10) [19]; 10. assessment as quality (7) [17]; 11. class = action / plan of action (2) [16]; 12. correlate = shown object (4) [16]; 13. ecology as an analysing instrument (12) [15]; 14. mediative = document / organization (11) [15]; 15. demography as an analysing instrument (12) [14]; 16. correlate = opponent (4) [14]; 17. correlate = force (4) [14]; 18. correlate = place (4) [14]; 19. correlate = physical body (4) [13]; 20. result = personal achievements (17) [13]; 21. mediative = methodology / product (11) [11]; 22. correlate = interacting object (4) [11]; 23. class = idea (2) [11]; 24. correlate = tool (4) [11]; 25. time = period (6) [11]; 26. scope of effect (7) [11]; 27. force of effect (7) [11].

TOTAL: 444 of 1602 (27.7% of 100%)

The extreme periphery

1. culturology as an analysing instrument (12) [9]; 2. geography as an analysing instrument (12) [8]; 3. time = present (6) [8]; 4. correlate = admired object (4) [8]; 5. place = natural unit (5) [8]; 6. correlate = skills (4) [7]; 7. correlate = container (4) [7]; 8. mode = worse development and changes (9) [7]; 9. result = better psychological state (16) [7]; 10. medicine and sports as an analysing instrument (12) [6]; 11. other type of resilience as an instrument for comparison (12) [6]; 12. implementation result as an instrument for comparison (12) [5]; 13. correlate = complex object (4) [5]; 14. class = skills / resources (2) [5]; 15. correlate = perceived object (4) [5]; 16. history as an analysing instrument (12) [5]; 17. philosophy as an analysing instrument (12) [5]; 18. military science as an analysing instrument (12) [4]; 19. psychology as an instrument for comparison (12) [4]; 20. instrument = providing resources / opportunities (14) [4]; 21. result = better situation / state (13) [4]; 22. result = worse situation / state (13) [4]; 23. place = human and his behaviour (5) [4]; 24. time = future (6) [4]; 25. attendant = optimistic attitude (10) [4]; 26. attendant = pessimistic attitude (10) [4]; 27. mediative = archaeological / historical items (11) [4]; 28. mediative = work of art (11) [4]; 29. instrument = psychological influence (14) [4]; 30. time = past (6) [3]; 31. correlate = felt object (4) [3]; 32. class = sphere (2) [3]; 33. personifier = name of work / publication / document (3) [3]; 34. correlate = protected object (4) [3]; 35. correlate = need (4) [3]; 36. quantity = some (8) [3]; 37. experience as an instrument for comparison (12) [3]; 38. realization possibilities as an instrument for comparison (12) [3]; 39. economics and business as an instrument for comparison (12) [3]; 40. sociology, politology, law as an instrument for comparison (12) [3]; 41. instrument = informational work (14) [2]; 42. biology as an analysing instrument (12) [2]; 43. result = emergence of changes (13) [2]; 44. pedagogy as an instrument for comparison (12) [2]; 45. correlate = agreement (4) [2]; 46. time = eternity (6) [2]; 47. type = governing principle / ideology (7) [2]; 48. class = agreement (2) [2]; 49. correlate = thing (4) [2]; 50. correlate = detail (4) [2]; 51. correlate = action (4) [2]; 52. result = more resources and opportunities (16) [2]; 53. correlate = moving object (4) [1]; 54. class = centre (2) [1]; 55. class = component (2) [1]; 56. class = purpose (2) [1]; 57. personifier = name of organization (3) [1]; 58. personifier = name of idea (3) [1]; 59. correlate = machine (4) [1]; 60. correlate = controlled object (4) [1]; 61. time = date (6) [1]; 62. degree of importance (7) [1]; 63. quantity = nothing (8) [1]; 64. mode = state (9) [1]; 65. attendant = alternative attitude (10) [1]; 66. result = demographic changes (16) [1]; 67. result = worse living conditions (16) [1]; 68. instrument = ecologic influence (14) [1]; 69. instrument = demographic transformations (14) [1]; 70. civil defence as an analysing instrument (12) [1]; 71. demography as an instrument for comparison (12) [1]; 72. ecology as an instrument for comparison (12) [1]; 73. medicine and sports as an instrument for comparison (12) [1].

TOTAL: 237 of 1602 (14.8% of 100%)

8. Conclusions

1. In the American mind, the denotative meaning of the RESILIENCE conceptual model is represented by 17 propositional schemata of five basic frames (1 possession, 2 identification, 1 comparison, 4 being and 9 action).

In the COCA corpus sample, the most prominent schemata proved to be comparison, being locative and action contact (the latter with the argument roles of analysis). Their total frequency 1077 of all 1602 cases (67% of 100%) means that it is usual for Americans to consider RESILIENCE from time and activity perspectives with corresponding conclusions about implementation results. Therefore, it is conclusions about the development of RESILIENCE rather than its results that is important for Americans.

The American focus on mental rather than direct interacting contacts with RESILIENCE is supported by various argument roles of analytical character. Thus, RESILIENCE is analysed via diverse MD-sources (works of research and art, points of view, documents, etc.) with different AT-attitudes (critically neutral, positive, optimistic, pessimistic, alternative), through some IN-tools (certain sciences or a comparison way). This shows the special relevance of the RESILIENCE concept for Americans.

2. Arranged via 17 schemata of the conceptual model due to the operations of cognitive interpretation and prominence, the field cognitive model of RESILIENCE in its macrostructure (100%, or 1602 cases of logical predicates) comprises 32.8% [526] of the image component, 4% [64] of the information component and 63.2% [1012] of the interpretation component.

2.1. The image component of the RESILIENCE concept includes metaphorical units (526 of all 1602 cases, or 32.8% of 100%). The dominating metaphors are RESILIENCE is as if HUMAN, CONTENTS, POSSESSED OBJECT, VARYING OBJECT, ANALYSED OBJECT, PRODUCT. Therefore, Americans believe that RESILIENCE can produce consequences in society (HUMAN). On the other hand, it can be the outcome of actions itself as well (PRODUCT). It changes dynamically (VARYING OBJECT) and may be under somebody's control (CONTENTS, POSSESSED OBJECT). All modifications of RESILIENCE are regarded properly (ANALYSED OBJECT).

2.2. The information component of the RESILIENCE concept is small. Among its 64 cases in the corpus sample, the most frequent features concern RESILIENCE identification as a factor of actions [24], an action / a plan of action [16], an idea [11] – totally, 51 of all 64 cases (79.7% of 100%). Subsequently, it is an idea, a plan and an action consideration that is important for Americans in viewing the essence of RESILIENCE. That accords with the above-mentioned prominent images of RESILIENCE.

2.3. The interpretation component is the largest one in the RESILIENCE concept macrostructure. Within it, the utilitarian (689 of 1012, 68% of 100%) and encyclopaedic (278 of 1012, 27.5% of 100%) sectors prevail. Such a quantitative contrast lets us state that Americans are more interested in the direct pragmatic consideration of RESILIENCE for common benefits rather than in its activity.

Moreover, the absolute focus on the pragmatic aspects of RESILIENCE is proven by the utilitarian sector percentage within the whole concept macrostructure. In particular, 43% of 100% (over 2/5 of the concept macrostructure) deals with the practical significance of RESILIENCE for humanity.

3. The field organization of the RESILIENCE concept is regarded as 29% (the core) and 71% (the periphery: 28.5% – close, 27.7% – far, 14.8% – extreme).

The core represents almost one third of the total concept contents. The frequency of its cognitive features shows that in the American mind there is a predominance of the being locative, comparison, possession and attendant action schemata. Thus, for Americans it is important to consider RESILIENCE in a certain place, and to treat its control with a critically neutral attitude. Consequently, RESILIENCE is associated with humans that cause something and with possessed objects or contents that are influenced by people.

The periphery includes two thirds of the total concept contents. The more remotely the periphery fields are located from the core, the more analytical means appear for the pragmatic consideration of RESILIENCE. Simultaneously, the cognitive features of other components are shown. Thus, the instrument and mediative description of RESILIENCE prevails already in the close periphery. Here, the cause-effect, temporal, goal and ontology relations develop as well. In the further periphery fields, there are more such features. The image components are present within the whole core-periphery range.

Therefore, the RESILIENCE concept is strongly relevant to Americans. Today, it is the pragmatic consideration of RESILIENCE for common benefit that is the most important for American society.

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