MENTAL SPACES AND CONCEPTUAL INTEGRATION NETWORKS (LINGUO-COGNITIVE APPROACH TO O. HENRY´S SHORT STORIES)

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Abstract: The article deals with mental spaces as small conceptual packets constructed as we think and talk, for purposes of local understanding and action. They are interconnected and used not only in creation conceptual integration networks, but also can be used generally to model dynamic mappings in thought and language. The author focuses on elements of conceptual integration network, building integration models, which involve setting up mental spaces and various operations in the blend itself. The results obtained are shown in O. Henry's short stories.

Key words: mental spaces, conceptual integration network, elements of mental spaces, elements of network, blended space.

Introduction

At present, linguists actively develop one of the most brilliant and promising theories of cognitive linguistics – the theory of conceptual integration or blending by Gilles Fauconnier and Mark Turner (1994, 1997, 2002). This theory was developed on base of mental space theory, worked out by Gilles Fauconnier (1994, 1997) in order to improve the theory of conceptual metaphor proposed by George Lakoff and Mark Johnson (1980, 2003) and gained wide usage in cognitive linguistics.

According to the theory of mental spaces by Gilles Fauconnier, cognitive operations that occur in the human brain and link language and thinking, can create all sorts of meaning: from simple concepts to complex theories. When a person is speaking, he/she is not aware of how exactly interpretation process is held, just as not aware of all the chemical reactions taking place in his/her brain (Fauconnier 1994). In fact, understanding of expression happens due to mental design on cognitive level: exactly when we are talking or thinking some structures arise in our mind: they are called mental spaces (Fauconnier 1997).

1. Mental space theory

Gilles Fauconnier defines mental spaces as ordered sets of elements (a, b, c,) and the relationships between them (R1ab, R2ad, R3cbf ...), which are open for replenishing of new elements and relations between them accordingly (Fauconnier, 1994: 16). George Lakoff (1987) believes that mental spaces are model situations (real and hypothetical) that are conceptualized by people. They include: 1) directly given us reality (as we understand it), 2) hypothetical situations, 3) situations associated with past and future (as we understand them), 4) fictional situations, for example, beautiful cinematic plots and 5) subject areas (such as economics, politics, mathematics, etc...) (Lakoff, 1987: 281).

Mental spaces are models of discourse understanding; they are interconnected within it and can be modified to the extent of its deployment as fragments, pieces of text worlds. Mental spaces are based on the Access principle of one mental space through another and they are constructed for understanding counterfactual statements, artifacts or local contexts of discourse.

In the theory of mental spaces we build a real, basic space of mental representation of all that we perceive. Any set of operations or actions that occur in real space, create projected, hypothetical space, i.e. mental spaces are compact formatted knowledge in our minds. They are constructed by certain elements, such as: 1) space-builders that take on variety of grammatical forms, such as prepositional phrases, adverbials and introductory words (*in 1929, in that story, indeed, perhaps*), conditional sentences (*if, ever*) and subject-predicate complexes (*She thinks, believes* ...). Their function is to represent the existing mental space or enter a new one; 2) the roles and their values – they are the main parts of mental spaces, 3) trans-spatial operators – they are elements that connect spaces represented by copulative verbs such as be, become, remain; and 4) connectors that link the objects (roles) spaces. Connector allows making references to one of these objects in terms of the other according to the principle of Identification or Access principle (Fauconnier, 1994: 3; Fauconnier, 1997: 40).

George Lakoff says that the process of building mental spaces requires compliance with these rules:

- the desire to avoid controversy within the space;
- the desire to expand the common platform of background knowledge on the largest possible number of adjacent spaces;

- the movement of elements that are situated in a particular area of the foreground to the background in next spaces (Lakoff, 1987: 282).

The theory of mental spaces offers unified and consistent means of understanding reference, plots and descriptions: in particular, it determines whether the events are real, historical, fictional, hypothesized or happening remotely. Due to this mental spaces can be of four main types:

- time spaces – can exist in real time or in the shifts to the past or future;
- space spaces – they show location, geographical places;
- domain spaces – an area of activity, such as work, games and so on;
- hypothetical spaces – they show imaginary situation, hypothetical or unrealized possibilities, suggestions, plans, considerations (Stockwell, 2002: 96).

In general, G. Fauconnier repeatedly emphasizes that mental spaces are not a reflection of reality or any of the possible worlds. In fact, they embody the image of how we think and talk about certain things without putting in ourselves any information about these things (Скребцова, 2000: 144).

G. Fauconnier does not claim that his theory of mental spaces will solve philosophical problems associated with the problems of reference and truth. He thinks that his merit lies in the results of the analysis of various lingual material (counterfactual expressions, subordinate clauses with when-conjunction); due to this analysis he was able to take a fresh look at old problems and to reach the level of broad, overall generalizations (Fauconnier, 1994: 152 – 159).

Further development of mental space theory and investigations on theory of language origin led to the creation of the unique conception – conceptual integration theory, worked out by G. Fauconnier and M. Turner (2002).

1.1 Conceptual integration networks

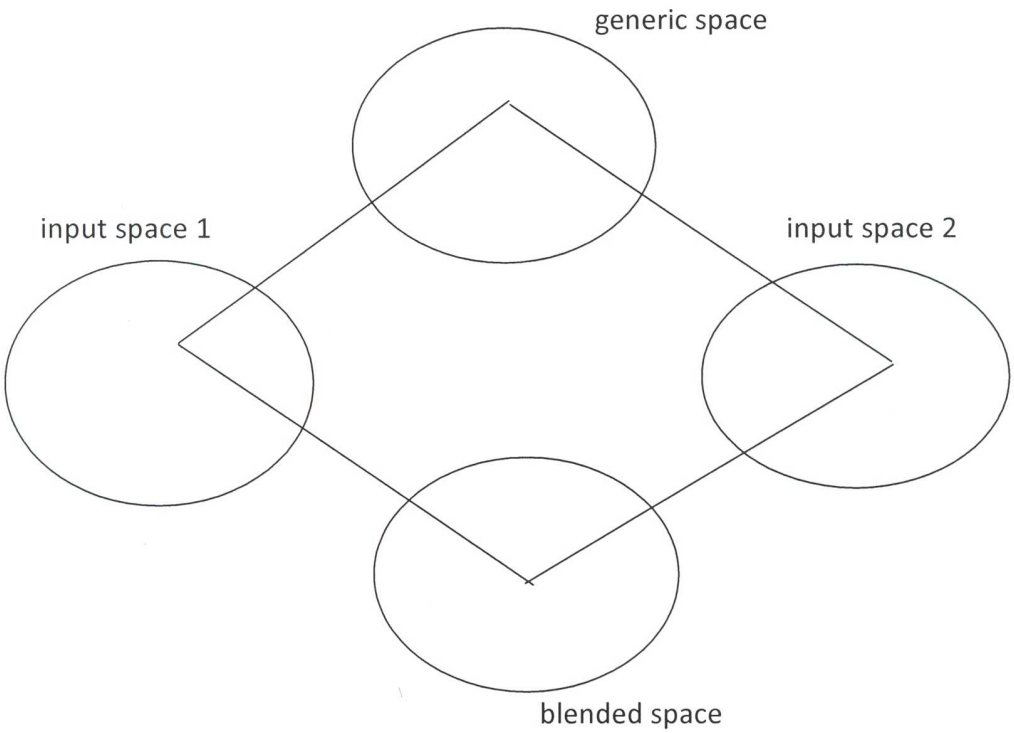


Figure 1

Conceptual integration network is understood as the basic cognitive operation that is carried out by a specific pattern at different levels of abstraction and it has clear structure which includes input spaces, generic space and special, integrated mental space – the blended space or the blend. Scheme of the conceptual integration process is as follows:

Generic space is a superstructure that maps onto each of the input spaces and contains what the inputs have in common. Input spaces, taking part in cross-space mapping, project fourth space – the blended space or the blend. The blend has emergent structure, not provided by the input spaces, i.e. a new meaning is created. This emergent structure is formed by more specific cognitive operations – composition, completion and elaboration (Fauconnier, 1997: 149–151; Fauconnier and Turner, 2002: 40–45; Turner, 2007: 379). Composition of the elements from the inputs makes relations available in the blends that do not exist in the separate inputs; it results in new relations between the elements of space. Completion involves a number of additional, but already known structures of the background knowledge for developing the situation, created in the blended space, i.e. it brings additional structure to

the blend. Elaboration develops further integrated structure of the blend through imaginative mental simulation of the situation that has arisen. This is the most difficult operation because it involves the use of new principles and new emergent logic. Elaboration is also called "running of the blend", which modifies it imaginatively (Fauconnier and Turner, 2002: 48).

Blended space (or domain) is derived from the input space (or domain); these input spaces can be related to each other as source and target domains, i.e., they can form a conceptual metaphor (Kövecses, 2002: 228–229).

In order to use the conceptual integration model effectively, G. Fauconnier and M. Turner put forward several regulatory or optimality principles that help to build conceptual integration network properly:

- integration – a scenario in the blended space should be well integrated situation;
- web – existence of the close ties between the blend and the inputs, when an event in one of these spaces implies the corresponding event in another;
- unpacking – input spaces and network of relations should be easily reconstructed by blended space;
- topology – the elements of the blended space should be in the same relations as their counterparts in the input spaces;
- common sense – if some element appears in the blended space, it should have meaning (Grady, Oakley, Coulson, 1999; Fauconnier and Turner, 2002).

In the types of blends and conceptual integration networks we can distinguish metaphorical / non-metaphorical blends simplex, mirror, one-scope or double-scope networks, and multiple networks. In non-metaphorical blend the actants of input spaces have equal status, i.e. they are mapped, but they are not merged, although other elements (time, place, language) are to be merged. In metaphorical blend we can always observe fusion of the most important, clearly defined elements of the input spaces that are profiled by this way. In addition, there are asymmetrical projection in the metaphorical blends, i.e. not all of the essential elements of the source space are projected onto the space of the target space; they have also asymmetric significance – when some of the input space is determinant and tematized.

1.2 How mental space and conceptual integration theory works

To show how mental space theory and conceptual integration networks work in literary texts, we chose short stories by brilliant American short story writer – O. Henry. Namely, we chose two short stories, called “Lost on Dress Parade” and “Squaring the Circle”. In the first short story “Lost on Dress Parade”, the main hero is Mr. Towels Chandler – a typical New York man, who is working in the office of an architect and earns 18$ per week. Every week he set aside 1$ and at the end of each ten weeks, having some extra money, Chandler could play himself a rich clubman – a person, who could go to the wealthiest part of the city and dine with the taste and luxury in the company of real rich people. For those 10$ he saved, he could be playing the wealthy idler for a few hours. During one of such wealthy evenings, when Chandler, wearing his elegant evening suit, was going to fashionable restaurant, he met a girl – Miss Marian. The girl was walking at the corner and suddenly slipped on icy snow sidewalk and fell down. Chandler helped her to stand on feet and invited to dine with him. Miss Marian was wearing simple and inexpensive black dress and cheap hat, but she was pretty and sure she was a lady – her manner and speech settled that. Chandler thought that he was lack of lady’s company, so they went together to a luxury restaurant. During the talking, Chandler began to prate to the girl about his “wealthy life” full of clubs, golf and riding, yachts and tours abroad. He thought that this evening belonged to him, so he played the role up to his clothes. When the dinner was over, Miss Marian returned to her handsome mansion, in fact to her real rich life. The story ends with Marian’s thoughts about the man she can love. To her mind such a man should be involved in some kind of work, he must have an aim in the life, not just be rich idler who spends life only in luxury clubs.

In this short story we built two mental spaces, connected with main heroes – Chandler and Marian.

1. First mental space

In this space we have *a* element (=Chandler) in a base space and *a’* element (Chandler’) in the projected space as its doublet accordingly.

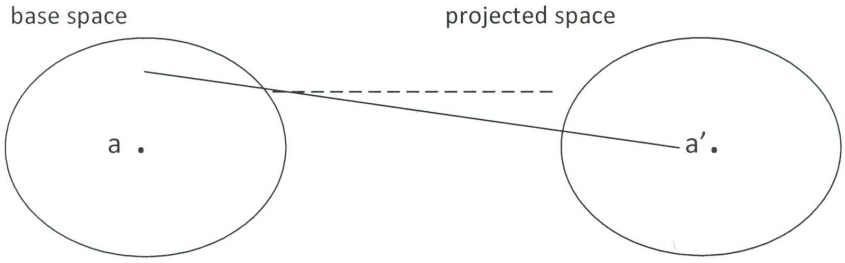


Figure 2

2. Second mental space

In this space we have the role of Marian, that is element *b* in base space and accordingly *b'* in projected space.

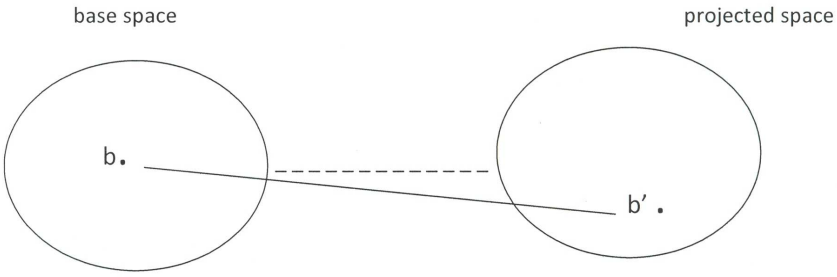


Figure 3

3. *Wealth* as an object of focalization

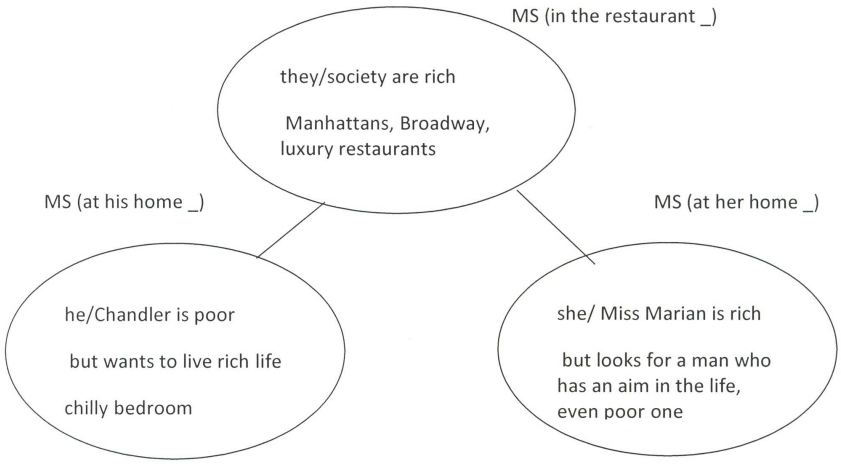


Figure 4

This example shows how *wealth* is described in this short story. O. Henry describes *wealth* not only through clothes, but also through two main characters of the plot – Chandler and Marian. They are two persons from completely different world – rich and poor – the author describes their feelings, thoughts and desires, which, as it has appeared, were antithetical.

4. Conceptual integration network of O. Henry's short story *"Lost on Dress Parade"*

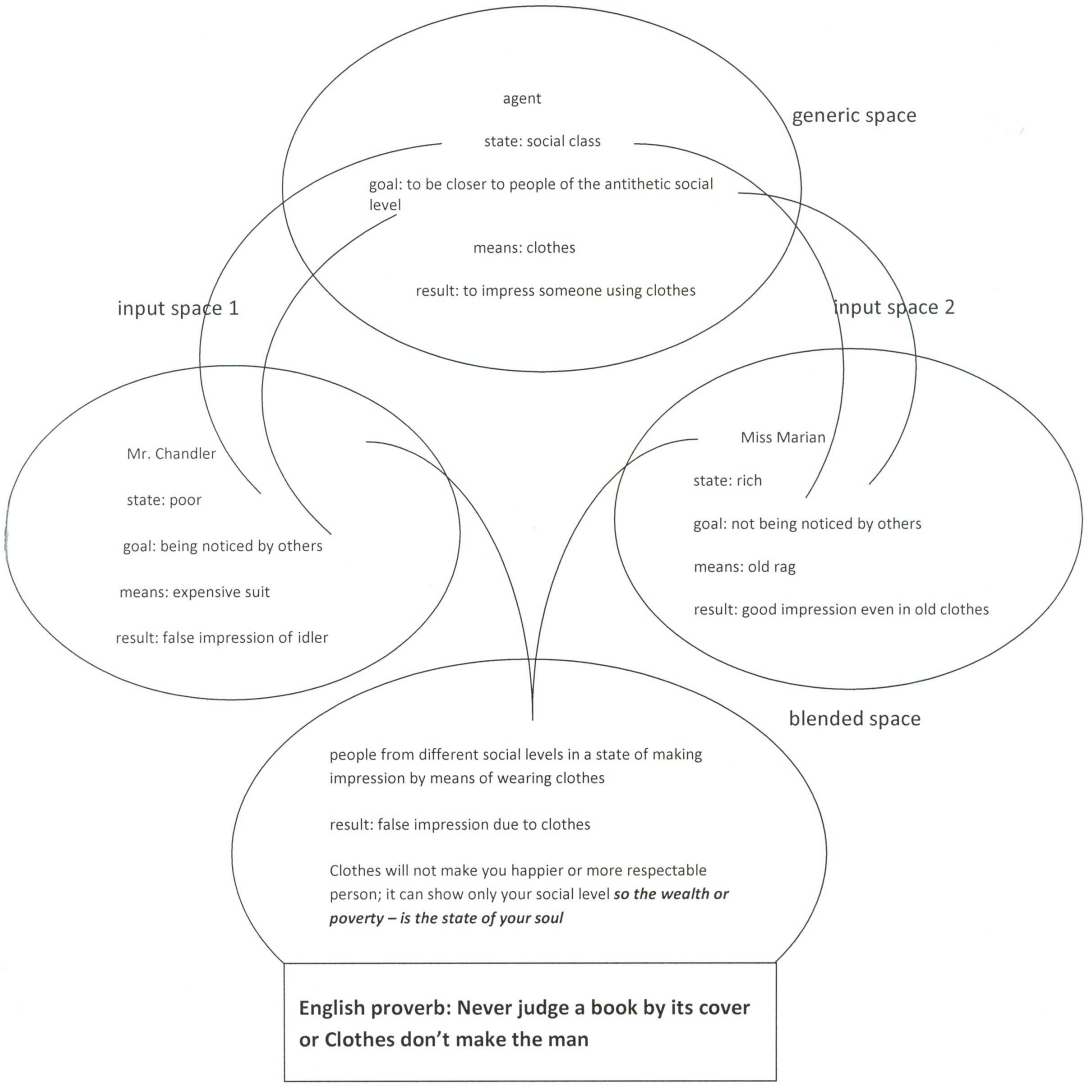


Figure 5

In the second short story, called "Squaring the Circle" we also build mental spaces according to its two main characters – Sam and Cal. These men are enemies, Sam lives in the village (at the nature, which is always a circle, because it moves in circles), and Cal lives in a big city – New York, which is always a square, because of the straight lines of the streets and

architecture, undeviating pavements and severe, uncompromising rules of living in a city. But when Sam arrives to New York to find his enemy, he becomes a victim of human indifference: nobody pays attention to him; nobody asks how he is doing, so Sam feels himself lonely in a very big city. And the only person he knew was Cal, so when he met Cal, they shook each other hands and stopped longstanding feud (See Figure 6, 7)

Mental space

Many years Sam and Cal are enemies

In a base space we have two main roles – a (Sam) and b (Cal), in the projected space we have their counterparts – a' (Sam) and b' (Cal) accordingly. Trans-spatial operator is represented by verb *be (are).*

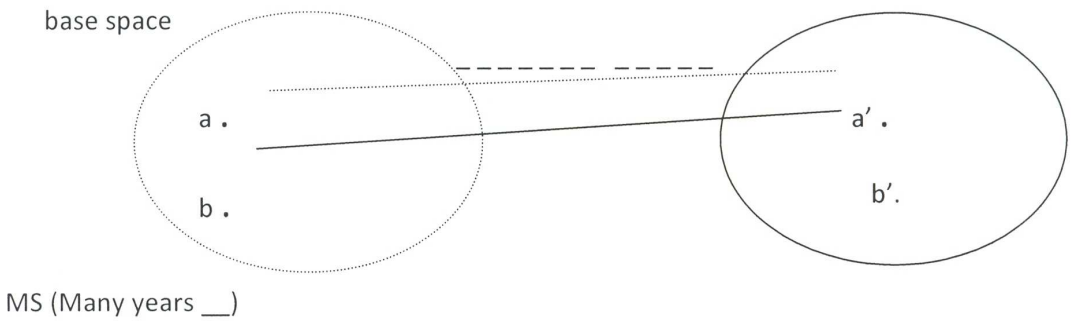
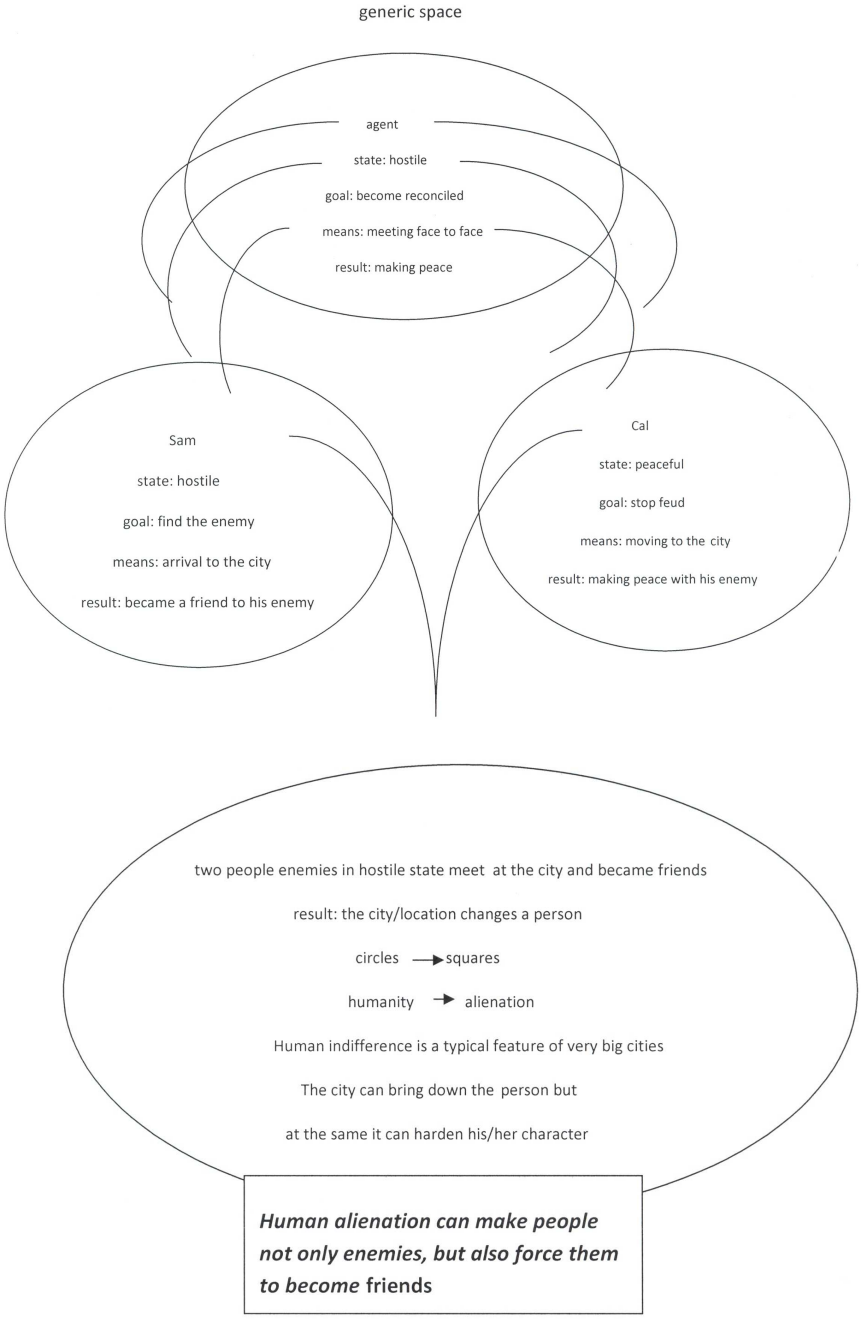


Figure 6

Conceptual integration network of the short story "Squaring the Circle"

Figure 7



Conclusion

The authors of this theory G. Fauconnier and M. Turner (2002) believe, that the "products" of conceptual integration are endowed by rich imagination, they are imaginative and creative (Fauconnier and Turner, 2002: 6). Generally, they define three principles, three postulates of human thought; they call them – three «I's»: identity, integration and imagination. Recognition of similarity, identity is an effective product of complex, creative and

unconscious brain function. However, the identity and integration together can not explain the role of meaning and its development without imagination. All three principles are basic, complex and unconsciously work in the "heart" of even the simplest meaning. These operations are the key to the unique creative abilities of human being.

Fauconnier and Turner also declare that people do not create mental spaces, relations between them and the blend for no apparent reason. We use this theory, because it gives us a global vision and understanding, as well as new value, it makes us efficient and creative. All conceptual connections, which are available in the theory of mental spaces and conceptual integration theory, authors consider important and call them vital. Among the most important conceptual relationships there are such relationships as time, space, change, identity, representation, cause effect, part-whole analogy and dysanalogy, quality, similarity, category, intentionality and uniqueness (Fauconnier and Turner, 2002: 92-101).

The theory of conceptual integration network certainly works in all areas of thought and action that distinguish humans from other species; language occupies a prominent place among them, because even very simple language constructions depend on complex integration.

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