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THE SENTENCES OF CHANGE IN GERMAN

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Possibility of identification of sentences of change in natural languages in connection with researches in the field of logic of change is discussed in this article. Logical bases of these

sentences are described, and their possible structure based on linguistic researches is discussed in this connection the problems of existential sentences, concepts of phaseness and observer are touched upon.

Keywords

sentences of change, logic of change, existential sentences, object, phaseness, observer.

Introduction. More detailed consideration of the problems concerning logic of change, emerging in recent years, makes it possible to speak of the existence in languages sentences of change along with existential sentences. Following Steshenko N. I., by the term «change» we shall understand «not only various conditions of the same object in time, but also movement, process, transition» [1]. Logic of change provides perfect language according to its syntax and semantics, allowing to give rigorous formulations of statements about the change of objects, to disclose the bases and consequences of these statements, to reveal their possible and impossible combinations. But it says nothing about the concrete characteristics of change and formation as language of logic is dry, in contrast to what we can observe in natural languages. The development of logic of change goes in two directions: logic of directed change and temporal logic.

Hegel's statements about subject transition from one condition to another one are systematized in Rogovsky's logic of directed change. Its language includes not only such terms of classical logic, as: «to exist» and «not to exist». It assumes at least four meanings predetermined by two types of ontological entities: objects which have, or have no properties, and objects with disappearing or appearing properties, i.e. not only the beginning and the end of the transition, but also the transition itself is modeled in it. Logic of directed change operates with concepts «appearing», «disappearing», «already existence», «still existence», «already non-existence», «still non-existence», etc. By means of these terms such rules are formulated, for example:

— to exist — the same that to start disappearing, and the same that to cease to appear;

— not to exist — the same that to start appearing, and the same that to stop disappearing;

to form — means appearing but still non-existence;

to disappear — it is appearing of non-existence;

— to exist already — means to exist or appear;

to exist still — means to exist or disappear, etc.

Thus, logic of directed change allows four types of objects existence: existence, non-existence, appearing (formation) and

disappearing. Concerning any object it is true that it either exists or doesn't exist, either appears or disappears. However it is impossible that the object exists and doesn't exist, exists and disappears, exists and appears, appears and disappears at the same time, etc. In other words, four possible types of existence exhaust all ways of existence. Logic of directed change allows us to express the idea about discrepancy of any movement and change in logically consistent form as the statement «The subject is moving at this moment and in this place». It is an equivalent to the statement «At this moment the subject is and isn't in this place» [2].

The second approach to logic of change is temporal logic of the Finnish philosopher and logician G.H. von Wright. Expression «A and in the following situation is B» can be interpreted as «Condition A changes into condition B». The marked-out characteristic of object in the fixed period of time is considered as a condition of object. Philosophical basis of this logical approach in the description of changes is the approach of Aristotle and Kant. In temporal logic the following statements are determined:

— any condition either remains, or appears, or disappears;

— changing the condition can't remain and disappear, remain and appear, appear and disappear at the same time;

— any change can't begin with logically inconsistent conditions and can't course such conditions, etc. [3]

N.I. Steshenko in his abstract pointed out that the relevance of his work in the applied aspect lies in the fact that «logic of directed change provides means of an explication of ways of change descriptions not only in dialectic philosophical tradition (in the sense of philosophical theories of change), but also in a natural language». [4]

Discussion. Laws of logic of directed change give us an opportunity to confirm that the natural language has to have sentences based on these laws. Therefore, we can talk about sentences of change because the term «existential sentences» is based on laws of classical logic and was accepted in linguistics long ago. What is characteristic for this «new type» of sentences? Both logicians and philosophers share the same opinion that time is a necessary condition of the description of change. These sentences inform about an event, process, in other words about everything where temporal factor, development in time, can be used. The use of subject names in them is improbable. The logicians suggest object instead of subject. In the new philosophical encyclopedia the object is defined as «something, on what subject activity (real and informative) is directed. The physical thing existing in space and time, objective and real situation can be object. It can be own body

of the subject. Conditions of consciousness of the subject, and even its Ego can be objects. Other people, their consciousness, and also cultural subjects (including texts) and their meanings can act in this capacity» [5]. Temporal factor characterizes the names of event semantics. Events have temporary extension; can be focused on a time axis. From the point of view of extension two types of event names can be distinguished on the time axis: lasting events – it means developing in time – and instant – it means made instantly, they take not a segment, but a point on the axis. Instant events can't be presented as lasting [6]. Sentences of change inform about phases change from appearing to non-existence. Therefore it is necessary to assume that names of event semantics have to appear in them. It is possible to confirm that subject exists, or doesn't exist.

First of all verbal nouns, i.e. propositional names are considered as names of event semantics. The propositional name comprises a certain event which represents the reality phenomenon, any fact even if it is small and insignificant [7]. The pro-positional name condenses the meaning of the whole sentence, describes a certain situation. It is possible to include not verbal names into a range of pro-positional names, which eventfulness of lexemes can be identified by means of words indicators in dictionary definitions due to synonymic relations with verbal names. Their semantics is quite various. It is necessary to choose «observability» as a classifying characteristic and then it is possible to mark out events of external influence on the observer; these are processes of sounding, light, taste and tactile sensations, and also events of inner processes: emotional and mental. This classification can be continued. Let's examine some examples from the German language. In «Kleine Enzyklopädie. Natur» sound processes are classified according to an increasing progression: from low to painful.

Ticken der Taschenuhr (ticking of a pocket watch)

Leises Flüstern (quiet whisper)

Blätterrauschen in leichtem Wind (leaves rustling on a breeze)

Übliche Wohngeräusche (usual noises in apartment)

Ruhiger Garten (calm garden)

Sehr ruhige Wohnstraße (very quiet residential street)

Leise Musik in Zimmer (a gentle music in the room)

Geräusche in Geschäftsräumen (noise in the shop)

Straßenbahn (tram)

Autohupe (automobile siren)

Presslufthämmer (hammer)

Nietlärm (sound of riveting)

Kesselschmiede (boiler)

Laufender Flugzeugpropeller (sound of airplane propeller)
In 4-5m Entfernung (from distance of 4-5 m)
This scale shows that the concept «sound process» is presented not only by verbal names, but also by the nouns calling subjects, capable to move and create sound waves. Besides, the concept «sound» is also reproduced by substantivized emotive verbs, for example: staunen, mitleiden.

Ein lautes Staunen ging durch das Heer. Definition lautes indicates that surprise is not expressed by mimicry but by voice. The sound is opposed to its absence – silence. The explanatory dictionary explains the concept Stille – as a condition of concern absence, composure which is not broken by noise, lack of noise, silence [8]. From this interpretation also follows that Stille and Schweigen are synonyms.

Eine Minute dauerte dies Schweigen (diese Stille) [9].

The silence is the precondition for sound perception and the end of sound process.

Ein allgemeines Händeklatschen des Beifalls unterbrach endlich diese Stille. Eine tiefe Todesstille endigt dann plötzlich das lebhafteste Gespräch … [10].

The German language has a synonymic number of the words which can inform about sound processes of a various origin with appropriate context. This series is Ton – Klang – Laut – Geräusch – Schall. The most general concept – the idea of a sound – has the word Ton which appears in the definitions of other words. The word Schall is used as the term for determination of the concept «sound» in physics, and it also characterizes sound process with echo effect. That's why it hasn't semantics of «neutral» and the other words of this series as Klang assuming sounding of several tones, and also Geräusch and Laut are synonyms to Ton in context.

Compare with: Gleichzeitig ertönte der sirrende Ton (Laut). Es gab ein klackendes Geräusch (Ton) [11].

As it is clear from the examples, Ton completely expresses information specific to Klang, Laut, Geräusch in a certain context but not the other way round. It is obvious that the concept concluded in the word Ton underlies the other ideographic synonyms. The concept «sound» in German exists in a number of propositional names among which are those that characterize specific sound processes, viz:

1. Communication of people: Gespräch (conversation), Reden (speech), Gerücht (hearing, rumor), Wortwechsel (dispute), Besprechung (discussion) and etc.

Language can characterize communication as neutral, for example: Unterredung (conversation), Redestrom (flow of speech).

Knowledge of negative emotions existence during communication is expressed by the words: Wortfechterei (logomachy), Streit (dispute), Gerücht (talk). Unpleasant communication is reflected in the words: Zank (quarrel), Gezank (abuse), Geschimpte (incessant swearing). On the contrary, easy, pleasant communication is expressed by the words: Plaudern, Plauderei (easy conversation).

2. The emotions with sound expression: positive: Lachen (laughter), negative: Weinen (crying), Schluchzen (sobbing), Seufzen (sighs).

3. Sound expression has a physiological condition of a person: Schnarchen (snoring), Stöhnen (moaning), Krächzen (groan), Keuchen (panting, laboured breathing).

4. Knowledge of sounds of wildlife is expressed by substantivized sound imitating verbs: Quaken (croaking), Miauen (meowing). Sounds typical to certain animals: Bellen, Gebell (barking), Krähen (croak, crow), Geheul (howling), Zwitschern (twitter, chirping), Winseln (whining, yelp), Wiehern (neighing).

5. Sounds of the lifeless nature: Grollen (peals of thunder), Donnern (thunder), Orkangeräusche (hurricane noise), Brausen (sea noise, murmur of the forest).

6. Knowledge of sounding of musical instruments is concluded in the words: Melodie (melody), Musik (music), Klang (ringing).

7. Human speech is characterized by the nouns: Stimme (voice), Ruf, Schrei (scream), Flüstern (whisper), Zischen (spiteful whispering), Poltern (loud fuss).

8. The sound process caused by human movement: Schritte (steps), Poltern (loud fuss), Stampfen (in figurative sense « tramp»).

9. The sounds made by equipment: Hämmern (knock: blows of hammer), Klopfen (knock), Dröhnen (buzz), Wirbeln (beat staccato knocking), Brausen (hissing), Zischen (hissing), Rammen (clogging of piles), Stampfen (ramming), Grollen (rumble), Brummen (crash), Schrillen (shrill, unpleasant sound), etc.

Perceiving sound process, the person identifies and compares it with already known sounds. Often for the description of a sound words connected with other denotations are used, i.e. secondary semiosis occurs. This process is especially evident by transfer of knowledge of sounds made by equipment that is quite logical as thunder peals, hissing of a snake, noise of sea and wood are known to mankind since ancient times while technical progress and its attributes arose much later. For example: Das Zischen der undichten Dampfleitungen, das Rammen der Maschinen, das Brummen von Kraftwagen, die Stimmen, das Stampfen der Lokomotiven – alles klang leiser und ferner [12]. In this example

Zischen and Brummen underwent secondary semiosis because animals as agents are characteristic for these verbs.

Das Zischen und Brausen aus dem ersten Kolben wie eine Fontäne emporsteigenden Säure ließnach [13].

The substantivized verb brausen informs about the sounds of sea, waves, forest. The use of «acid» as the agent is the result of sounds identification.

Semantics of the verbal and abstract nouns denoting the concept «light» is rather monotonous. The dictionary registers noun Licht, verbal noun Schein, adnouns Helle, Helligkeit, nouns with these derived stems: Tageslicht, Sonnenschein, Mondlicht, Mondschein. They are adjoined by substantivized infinitives Leuchen, Brennen. The last infinitive is included due to context as it characterizes the light stream generally as possessing strong thermal radiation. The noun Blitz names a natural phenomenon caused by an electric charge, and characterizes the short-term light phenomenon. Light sources aren't represented by context as light processes, for example: Die Lampe flammte auf (The lamp was lit) as information on subject action is important here, instead of attention focusing on any feature of light process, compare to: Das Licht flammte auf (Light was switched on), i.e. appeared.

The structure of sentences of change is determined: information is focused in them, first of all, in the statement «change in phases». Phase is a characteristic, attributed to some action or process, and relating to a predicate. Phase meaning arises in the sentence (particularly in Indo-European languages) due to a verb. These verbs are usually connected with processual predicates. Phaseness is a feature of predicate, but not one of the subjects as «the beginning and the end don't exist without feature» [14]. Thus, the phase verb expresses some temporary aspect of feature, characteristic, event. Studying of verbs within sentences with a propositional name in a position of a subject allowed us to reveal that phase meaning is very often expressed by verbs of motion, being exposed to metaphorization.

According to Lakoff the focus of metaphor is thought, not language, that metaphor is a major and indispensable part of our ordinary, conventional way of conceptualizing the world, and that our everyday behavior reflects our metaphorical understanding of experience. The metaphor involves understanding one domain of experience in terms of a very different domain of experience. As a result of his research Lakoff came to new definition of the word «metaphor»: the metaphor can be understood as a mapping (in the mathematical sense) from a source domain to a target domain. [15].

Not an objective similarity between objects, but correspondence between two domains subjectively determined by people is at the root of the metaphorical transferring. Considering metaphor in cognitive aspect researchers focuses attention on conceptual specifics of metaphor. Use of cognitive semantics achievements allows to reveal the regular metaphorical models having the language nature, and to explain their appearing.

Let's consider polysemous verbs of motion which metaphorical meanings are connected with the concept «change» in semantic paradigms. The class of «change of being» verbs includes those verbs that denote a demonstration of qualities and characteristics inherent in the observed phenomena, verbs of motion, movement, placement of objects, verbs with the locative components «empor-, heraus-, entgegen-» and etc..

The analysis of the verbs containing in their meanings seme «movement» gives us an opportunity to mark out the following metaphorical models:

1. To move – to go, to come – to appear

Appearance of metaphor is due to existing of image model in consciousness of native-speakers according to which the situation «appearing» is conceptualized as a movement in space and as the result – appearing in other place: Licht kam irgendwoher [16]. Die Steige herauf kamen Schritte [17]. Ein lautes Raunen ging durch den Saal [18].

2. To move – to meet – to arise

This model is a subspecies of the previous one. The basis of this metaphor is the knowledge of the fact that any approach to the observer is the recognition of the object, its identity, hence its appearing: Unten kam der Schwall und Lärm der Straße mir entgegen. Schritte, die ihm entgegenkommen ... [19].

3. To move – to pass by – to disappear

The basis of this metaphor is the motion path, which combines the motion near the observer and the moving away in space, as well as the disappearing from the field of perception. Schritte gingen auf dem Korridor vorbei [20].

4. To move – to move away – to disappear

The base of the metaphorical verb indicates a considerable distance that occurs between the phenomenon and the observer, which inevitably causes a weakening of perception and, hence, the disappearing of the phenomenon. Far means badly distinguishable, unapproachable. Die Schritte des Funkers entfernten sich ... [21].

5. To move – to spread/travel in space – to exist

As spreading in space of any phenomenon assumes its continuous supervision, it characterizes its existence in the best way.

Reconsideration of movement parameters is noticeable here: movement in different directions, expansion of influence zone on observers as existence of process. Aber das Schweigen, das sich im Zimmer ausbreitete … [22].

6. To move – to rise – to appear

In this model the situation of appearing is interpreted by native speakers as lifting up as the object gets to perception focus at its rising over the other objects: Unter den Umstehenden erhob sich ein bedrohliches Gemurmel [23].

7. To move – to slide up – to arise

It is a modification of above-mentioned model. Intensity of motion in space – smoothness, gradualness other than the previous action is emphasized: Das Licht glitt wieder sanft an den Wänden empor [24].

8. To move – to come to the top – to arise

It is another form connected with the movement upward. The basis for reconsideration of motion stands the appearing over any surface and as a result establishment of appearance: Endlich taucht ein schwankender Schein auf der Straße auf, verschwindet, taucht auf ... [25].

9. To move – to overcome an obstacle – to arise

The meaning of overcoming of an obstacle is associated with process of appearing as a transition through a certain line behind which the object can be identified is observed. … Und gurgelnde Geräusche entrangen sich seiner Kehle … [26].

10. To move – to flow– to arise

Appearing is metaphorically interpreted as water movement – fast and all-pervading. Reconsideration of the parameters of movement is observed again: instant spreading in space with high extent of penetration: Helles Licht ergoss sich in den Flur [27].

11. To move – to crawl/ move slowly – to arise

The basis of the metaphor is a characteristic of movement in space with possible approach to the observer. The negative assessment connected with movements of reptiles is important. It is shown that a verb is used for the phase characteristic of the unpleasant phenomena: Grauschwarz kroch die Dämmerung ins Zimmer [28].

12. To move – to fall – to arise

In this model, the situation of appearing is reinterpreted as the appearing from above. The basis of the metaphor for the use of the verb fallen concerning light processes is the light source location in the top part of space. Aus einigen Fenster fiel matter Lampenschein [29].

13. To move – to go down – to arise

This model is a subspecies of the previous one. Slow movement down brings to the forefront: Die Dämmerung senkte sich bereits über die Stadt [30].

15. To move – to get – to arise

The metaphorical meaning of the verb dringen creates the characteristic of the phenomenon as possessing ability to get through certain obstacles in its way and as a result becomes observable: Aus dem Schlafzimmer drang das geschäftige Poltern seiner Frau [31].

Sentences of change differ from existential sentences that the statement about the place of action isn't so actual for them: it can or cannot be as the statement about change is more important. There is a person as local or, in other words, an observer in these sentences a priori as there has to be somebody who observes change and establishes its fact. The feature of observability can coincide with the feature of «concrete and time localization which is opposed to the feature of temporal abstraction of action and therefore unobservable» [32]. So the use of verbs containing the phase characteristic can be considered as an indicator of the observer.

Conclusion. The characteristic «development in time in phases «non-existence-appearing(formation)-existence-disappearing» is expressed by the verb in natural languages. Feature, characteristic, event in sentence structure is presented by the name of event (propositional) semantics. First of all verbal nouns or propositional names are considered as the names of event semantics. They include non-verbal names, which lexemes can be revealed by means of word indicators in dictionary definitions due to synonymic relations with verbal names or propositional names. Their semantics is quite various. It is necessary to choose «observability» as a classifying characteristic and then it is possible to mark out events of external influence: these are processes of sound, light, taste and tactile sensations and also events of inner processes: emotional and mental. The list can be continued. Seme "phase" appears due to a verb in the sentence (in particular in Indo-European languages). The phaseness is expressed by verbs of various semantics in sentences of change. Their studying allows us to reveal that the verbs of motion by metaforization assume seme "phase". The analysis of examples discovered the following metaphorical models: phase «appearing: to move – to go, to come; to move – to meet; to move – to rise; to move – to slide up; to move – to appear; move – to overcome an obstacle; to move – to flow; to move – to crawl/ move slowly; to move – to fall; move – to go down; move – to get; phase «disappearing»: to move – to pass by; to move – to move away; phase «existence»: to move – to spread in space.

Immanent characteristic of these sentences means the presence of the observer.

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