

## **The Verbs of Motion in Linguistic Consciousness of Native Speakers of the German Language (On the Basis of Association Experiment Data)**

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**Abstract:** The study presents the results of one of the stages of complex cognitive-discursive study of the German verbs of motion and verbs of movement in space. The leading method of the research was a directional association experiment, the students and lectures of Erfurt University (Germany), namely of departments of philology and education, appeared for the informants. Topicality of this research depends on the increasing interest to cognitive understanding of the category of motion as essential condition of life. Cognitive interpretation of the results of such experiments gives very important information to describe this or that concept as reality of linguistic consciousness of the native speaker and allows to get the view of the national specificity of perception of reality. On the basis of the quantitative analysis and the analysis of lexico-semantic systematization of the meanings of verbal units, it has been ascertained that the native speakers of the German language have wide range of notions of movement. The words of near periphery and kernel components of the concept of motion are the verbs denoting changes of body position in space, relative to initial, intermediate and end points: laufen, rennen, gehen. The kernel of conceptual field of motion is the verb laufen. According to the index of brightness, it is represented the hierarchy of meanings of some denoting movement in space, prototypical conception of which is quick movement on foot on earth surface. The reconstruction of the fragment of movement concept perception by the native speakers allows to carry out the contrastive analysis of perception of the categories of motion and movement in space by the representatives of different professional groups, native speakers of different structural languages and various cultures.

**Key words:** Directional association experiment, the verbs of motion, the verbs of movement in space, associative field, linguistic consciousness, modeling of semanteme

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### **INTRODUCTION**

From the philosophical perspective motion in the broad sense of the word, denotes change that is transition from one state into another. Hereby, one differentiates “qualitative, quantitative change, postural changes in space (movement) and substance change, including appearance and destruction” (Anonymous, 2007). At the present stage, two ways of interpretation of this category have been outlined, “one of which identifying motion with space-time movement, continues preserving treatment of motion as integral feature of substance, another is straying from its identification with movement in space and time, focusing on variety of forms of motions and returning to the treatment of motion as change of the potency into act as manifestation of dynamically living forces and energy of innate processes” (Anonymous, 2000). Since any change occurs as a result of a certain process and activity in the German language as in the

Russian language, motion has explicit manifestation mainly by verbs. In consideration of motion as requirement of any activity, E. Lyaizi differentiates the verbs, (1) denoting motion the whole body relative to ambient space: fallen (fall), rollen (roll), kommen (come); (2) the verbs, when only part of the subject is moving relative to the whole body: winken (wave, nod), essen (eat), kratzen (scratch); (3) the verbs, denoting the motion of the whole body relative to ambient space and the motion of the separate parts of the body relative to the whole body as well: gehen (go), springen (spring), laufen (run); (4) the verbs of motion denoting a certain process: brennen (burn), wachsen (grow), erwärmen (warm). Hereby, he defines more precisely that there do not always exist clear borderlines between the verbs denoting process and motion for example, one may refer the verb wachsen (grow) to the verbs denoting slow motion that is invisible by single observation (Leisi, 1967). “Motion gives rise to special form of representation in our brain

schemata or programs of motion, its mentally retrievable "trace". Representation, corresponding to the conception of changing in time objects that are located relatively part to the whole, background to the figure in the dynamics of space and time, becomes the cognitive base of the verb (Kubryakova, 2002).

The study gives the results of one of the stages of complex cognitive-discursive study of the verbs of motion and movement in space. Systematization of stimulus association allows to reconstruct the fragment of perception of the concept of motion by the native speakers of the German language that in turn will be effective in further carrying out contrastive analysis of perception of motion and space movement by the representatives of different professional groups, native speakers of languages of different structures and various cultures.

## **MATERIALS AND METHODS**

By conducting directional association experiment the students and lectures of Erfurt University (Erfurt, Germany), namely, of departments of philology, specialty "Germanistik" (Germanic studies) and education, specialty "Sport und Bewegungswissenschaften" (Sports and Physical training), appeared for the informants. In a questionnaire the age, sex, course and special subject of the participants of the experiment were registered. The number of the informants at the department of philosophy made up 51, at the department of education 53. The total number consisted of 104. In questionnaire A, it was suggested to point out the verbs of motion (Bewegungsverben). At the second stage of the directional association experiment in questionnaire B the informants were suggested to point out the verbs of movement (Fortbewegungsverben).

## **RESULTS**

When processing the results it was calculated the total number of responses and it was revealed kernel words, actualized by perceiving the word "motion". According the received data the students of the philological (hereinafter philologists-students) and spots (hereinafter sportsmen-students) specialties pointed out almost equal number of associations: 137 and 133, respectively. In the experimental group of the philologists-students there is more frequent association of motion with the verbs: laufen (run) 8.2%, gehen (go) 7.9%, rennen (rush) 7.6%. The second place by productiveness is taken by the verbal units: springen (spring) 5.1%, hüpfen (jump, skip), schwimmen (swim)

4.2%, fahren 3.5%. The following verbs are tanzen (dance), sprinten (spank, spurt), rollen (roll) 2.5%, drehen (turn), fliegen (fly) 1.8%, kriechen (creep), werfen (cast) 1.7%, fallen (fall) 1.5%, schleichen (crawl), heben (lift), flitzen (rush), ziehen (draw) 1.3%. The forth level consists of the verbs: krabbeln (grovel, flounder), schieben (move), schütteln (shake), schwingen (wave) 1%. In the subsequent responses (that accounts for more than half of all pointed lexical units), it is observed steep drop of frequency of their use that is <1%. Among them are the verbs such as drucken (press), nehmen (take), fangen (catch), schreiben (write), spazieren (walk), bücken (stoop), wandern (wander), aufstehen (get up), greifen (snatch), pendeln (swing), sprechen (speak), spielen (play), sausen (rush at full speed), kullern (cartwheel), tauchen (dive), segeln (sail) and also winken (wave; nod; wink), rütteln (shake), essen (eat), musizieren (play some musical instrument), atmen (breathe), lachen (laugh), schleudern (throw, toss), tippen (tip), halten (old) and others. The overall number of responses are 594, failures 0.

In the focusing group of sportsmen-students, the most frequent verbs are laufen (run) 6.8%, springen (spring) 6.2%. Less frequent are the verbs rennen (run) 5.8%, gehen (go) 5.4%, hüpfen (jump, skip) 4.7%, rollen (roll) 3.7%, sprinten (spurt) 3.2%. The third group consists of tanzen (dance) 2.9%, schwimmen (swim) 2.8%, werfen (throw), kriechen (creep) 2.7%, fliegen (fly), drehen (roll around), stoßen (push on), gleiten (slide) 2.3%. The forth group includes the associations, the frequency of their use is from 2-1%: klettern (clamber), balancieren (balance), fahren (drive), fallen (fall), schleichen (steal up), krabbeln (crawl), joggen (jog), wandern (wander), schwingen (swing, swiss, struggle). The responses of <1% contain the following verbal units as spazieren (go for a walk), walken (walk), ziehen (pull), reiten (ride), drücken (press), robben (to crawl on one's stomach), stolpern (hobble), marschieren (march), spielen (play), kämpfen (wrestle), turnen (do some physical activity), boxen (box), tauchen (dive), galoppieren (gallop), kreisen (turn round), fangen (catch), sichbeugen (bend down), rudern (go in for rowing), heben (pick up), dehnen (draw out). The less frequent appeared to be the peripheral components schlendern (ramble, roam), bummeln (stroll, take a walk), ringen, schlappen (shuffle), schlagen (beat), hampeln (rush about), schweben (hover), hopsen (hop), walzen (roll), singen (sing), kontrahieren (contract one's muscles), schleifen (drill), graben (dig) and others. The overall number of responses is 737, failures 0.

Thus, the informants of both groups, irrespective of their background have rather wide range of ideas about motion, without identifying this notion only with

movement in space-time and with liberal share of probability one regards it as relativity of its diversity of forms. But at this stage the words of near periphery and kernel components have been the verbs forming in LSG of motion (Wehrle and Eggers, 1961) and denoting changes in position of the body in space relative to initial, intermediate and end points (Dornseiff, 2004): laufen, rennen, gehen that is: the verb laufen to move in vertical position on foot at a good tempo appears to be prototypical image of motion (sich in aufrechter Haltung auf den Füßen in schnellerem Tempo fortbewegen (the index of brightness 7.43%) (Table 1).

With regard to the received results at the second stage of the directional association experiment in questionnaire B the informants were suggested to mark the verbs movement (Fortbewegungsverben) that is the verbs denoting change of the body position relative to initial, intermediate end points (Table 2).

According to the data of the experiment the number of responses to a stimulus word in the focusing group of sportsmen students is 30.13% greater than in the group of philologists students. We believe that it is conditioned by the appearance of associates, connected with their occupation. It is noticed that the verb sich bewegen (move) has been mentioned in total, 7 times at both stages and the verb sich fortbewegen has been marked once. According to the brightness index, obtained in terms of the experiment, the hierarchy of the meanings of the seme in the group of the philologists-students can be presented in the following way:

- Fast movement (the brightness index is 25.5%)
- Take a walk, travel (the brightness index is 15.4%)

- Movement by means of land transport (the brightness index is 11.8%)
- Saltatory movements (the brightness index is 8.4%)
- Movement by means of water transport (the brightness index is 6.5%)
- Vertical movements (the brightness index is 5.6%); movement by means of air transport (the brightness index is 5.3%)
- Movement in prone position using hands and feet (the brightness index is 3.4%); move away (the brightness index is 3.1%); leaving for removal (the brightness index is 2.1%)

The hierarchy of the meanings of the seme of movement in the group of sportsmen-students according to the brightness index, obtained in terms of the experiment, appears to be in the following way:

- Fast movement (the brightness index is 21.1%)
- Take a walk, travel (the brightness index is 13.4%)
- Saltatory movements (the brightness index is 12.1%)
- Movement by means of land transport (the brightness index is 8.5%)
- Movement in prone position using hands and feet (the brightness index is 6.9%)
- Movement by means of water transport (the brightness index is 5.7%); vertical movements (the brightness index is 5.7%); slide (the brightness index is 5.5%); movement by means of air transport (the brightness index 5.1%)
- Move away (the brightness index is 1.8%)

Table 1: Represents the data of lexical entries

Verbs	LSG according to the dictionary by F. Dornseiff	The number of prefixal derivatives according to the dictionary by August (1998)	Frequency class	The overall number of responses in the course of the experiment	Rank of the verbs according to the results of the experiment
Gehen	5.2 Possibility; 8.3 Movement; 8.6 Movement on the earth surface; 8.23 Direction, route, control; 9.75 Success 15.17 Permission	63	6	87	3
Laufen	7.61 Liquid; 7.62 To flow; 8.3 Movement; 8.6 Movement on the earth surface; 8.19 Fast; 17.13 Track and field athletics; 19.12 Automobile	35	8	99	1
Rennen	8.6 Movement on the earth surface	8	12	88	2

Table 2: Demonstrates the results of the second stage of this directional experiment

Variables	Philologists-students	Sportsmen-students
Number of informants	51	53
Number of responses	415	561
Number of associations	86	86
Kernel of conceptual field	laufen 10.6%;	laufen 8.6%;
Units of near periphery	gehen 9.9%, fahren 9.9%, rennen 8.7%;	springen 7.3%,gehen 6.9%,rennen 6.8%;
Units of remote periphery	springen 5.8%, fliegen 5.3%; schwimmen 4.8%, sprinten 3.4%, reisen 2.9%, hüpfen 2.6%, rollen 2.4%, joggen 2.4%;	fahren 4.8%, schwimmen 4.8%, fliegen 4.5%,hüpfen 4.3%, rollen 3.9%, sprinten3.6%,
Units of outside periphery	klettern, krabbeln, kriechen, spazieren 1.7%, fallen 1.4%, reiten, umziehen 1.2%, 1%.	klettern, kriechen 3.3%, gleiten 2.9%, krabbeln 2.7%, rutschen 2.5%,schreiten 2.13%,reiten1.78%,1.5%Failures
	0	0

## CONCLUSION

Thus, grounding on the results, received in the course of directional association experiment, we have concluded that in linguistic consciousness of the native speakers of German, belonging to the social group of students, irrespective of their major subjects at university, the most actual feature of the concept of motion is movement in space, prototypical image of which is fast movement by means of feet on the earth surface. The results of the experiment are not at variance with the existing dictionary entries (Wehrle and Eggers, 1961; Dornseiff, 2004; Anonymous, 1998) but allow to receive the widest expression of the considered categories.

In different languages there exist nonidentity regularities of transition from the concept as mental entity to linguistic forms of its manifestation: "one and the same reality is categorized differently in languages" (Kubryakova, 2004).

The cognitive interpretation of the results of such experiments gives very important information for describing this or that concept as reality of the linguistic consciousness of the native speaker and allows to get the idea of national specific perception of reality.

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## REFERENCES

- Anonymous, G., 1998. Wortfamilienwörterbuch der deutschen Gegenwartssprache. MaxNiemeyerVerlag, Tübingen, pp: 452S.
- Anonymous, 2000. New encyclopedia of philosophy in 4 volumes. V.1 A-II: M.: "Thought", pp: 599.
- Anonymous, 2007. Great Russian Encyclopedia. M.: Scientific Press. Great Russian Encyclopedia, 8: 364.
- Dornseiff, F., 2004. Der deutsche Wortschatz nach Sachgruppen. 8., völlig neu bearbeitete und mit einem vollständigen alphabetischen Zugriffsregister versehene Auflage von Uwe Quasthoff. Berlin, New York: Walter de Gruyter, pp: 933S.
- Kubryakova, Ye.S., 2002. The verbs of action through their cognitive features. Logical analysis of language: Semantics of the beginning and end-M., pp: 442.
- Kubryakova, Ye.S., 2004. Language and knowledge: To knowledge of language: parts of speech from cognitive viewpoint. The role of language in cognition of the world-M.: The languages of Slavic Culture, pp: 182.
- Leisi, E., 1967. Der Wortinhalt. Seine Struktur im Deutschen und Englischen. 3 Auflage, Quelle and Meyer. Heidelberg, pp: 44S.
- Wehrle, H. and H. Eggers, 1961. Deutscher Wortschatz. Ein Wegweiser zum treffenden Ausdruck. 12. Auflage, völlig neu bearbeitet von H. Eggers. Stuttgart: Klett, pp: 821S.