

Y.V.Koposov

FORMING THE DATABASE OF VERBAL EQUIVALENTS OF EMOTIONAL STATE "FEAR"*

Moscow State Linguistic University
 Russia, Moscow, ul. Ostozhenka, 38
 tel. : (095) 201-56-97
 e-mail: Potapova@linguanet.ru

The article describes aims and tasks of forming the database of verbal descriptions of emotional state "fear". The basic structure and resources (that are supposed to be demonstrated during the Session) of the database are shortly described.

Blackmailing and other illegal actions are often carried out through telephone communication and we may claim that malefactors have been using their voices to commit crimes for quite a long time. Correspondingly, developed the ways of fighting against this type of crimes. The number of works on forensic phonetics published in the past ten years is sufficient to single it out as a separate line of investigation, if not as a separate science. Unfortunately, almost all noteworthy works were published abroad and it is highly regretted by the forensic experts in this country. The problem of identifying of the emotional state of the speaker (especially «fear») remains one of the most up-to-date and actual topics of the applied linguistics direction that deals with identifying a person by his or her voice. In general, the emotional state "fear" has been studied in works of researchers of different fields of knowledge such as psychiatry (A.Zakharov, C.Izard and others), acoustics of speech (R.Potapova and others), medicine (Mechnikov and others).

Emotionally charged speech can be marked in different ways e.g. by intonation, means of lexical devices, emotional suffixes, interjections, and particles. Of course, in studying the effect of emotional expression of "fear" on speech, it is necessary to give attention to variations and invariances in prosodic characteristics concerning fundamental frequency, intensity and duration. Different emotional states (e.g. fear, anxiety) are accomplished with different prosodical features. Potapova and Potapov (R.K.Potapova, 2002) made a huge work in this direction. In their work "Temporal correlates of emotions as a speaker-state specific parameters for forensic speaker identification (speech temporal correlates of fear/anxiety for russian native speakers)" Potapova and Potapov proved that, for example, the modifications of speech rate for realizations of fear are the most stable. They always have negative (with sign minus) values in comparison with average duration of the syllable in the norm. The speech rate characteristics of the states grief\melancholy and joy\fury in comparison with the norm may have both signs (+,-).

As it is known, the so-called separate investigation method is being used in working with phonogrammes. The aim of the separate investigation of each phonogramme under examination is to single out its individualizing features. The separate acoustic investigation is the determination of features reflecting spectral-temporal characteristics of speech signals being studied, such as basic tone frequency, duration, intensity, formants, and suprasegment spectrum. Separate linguistic investigation consists of defining and describing linguistic particularities of sounding speech in each of the phonogrammes under study. Our work refers to the linguistic study.

In this research we decided to pay special attention to particularities of verbal description of emotional state «fear» in Russian speech. The actuality of this research is explained by the fact that the solution of the problem of identifying of the emotional state of a person is urgent for forensic phonetics and forensic linguistics and a number of other fields of knowledge. It is necessary for a forensic expert to possess the full range of «fear» definitions.

The main aim of the research is to provide an expert in forensic linguistics with an exhaustive range of verbal descriptions of emotional state "fear", which is necessary for working with acoustic signal, to enable to recognize the emotional state according to, for example, trembling of one's voice. On the other hand an expert should possess a wide range of visual features of state "fear" while working with videomaterials (i.e. gestures and mimics).

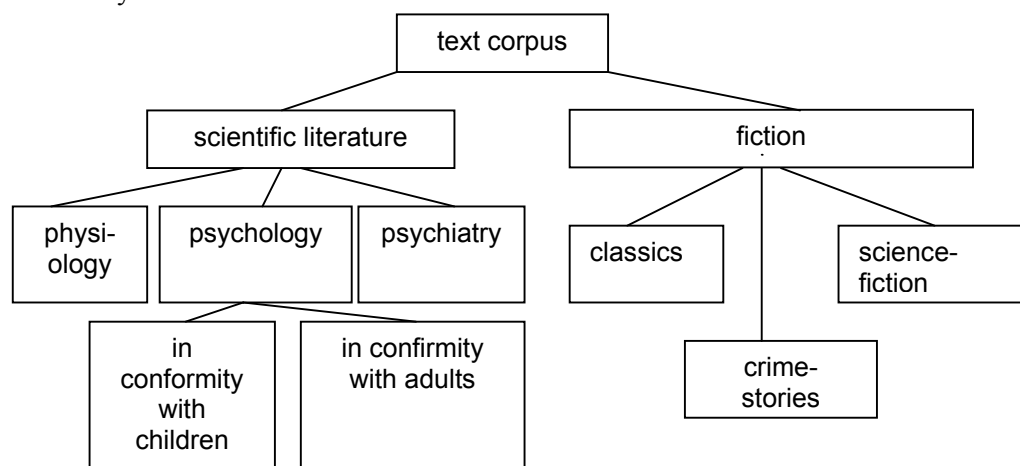
* The research is leded by prof. Potapova R.K.

Each person is unique. Each individual has specific ways of delivering his or her thoughts which become apparent in the set of grammatical and stylistic means of language and in the degree of mastering the logical side of utterance. That's the very reason to create the database of abundant stylistic material, with examples taken from different authors and from various genres of literature.

Various gradations and forms of human fear are: horror, panic, dread, anxiety, fearful expectation, intimidation, oppression, obedience, and devotion imposed by fear (Viliunas V. K, 1976). Fright or horror are accompanied by freezing, panic wish to run away, irregular diffusive muscle excitement. Descriptions of these shades are being gathered in this database.

Examples of descriptions of children's fears are also entered into the database, as most of the psychologists consider the notions of «fear» and «neurosis» equal, and claim that adults' fears do not differ much from the children's ones (at least the adults' fears result from them).

A database on emotional state "fear" is worked out in Microsoft® Access 97 (and Borland Delphi 6.0). While working with text corpus the main principle was dichotomy and sometimes trichotomy:



To make the database convenient (also for visual convenience) we decided to use "frames" (1 example – 1 frame), that were formed as follows: word(combination) ⇒ context ⇒ frame. The following fields are to be found in the main form of the database: expression, keyword, context, original source, type of fear (ranging from anxiety to phobia), language of the original source, genre, stylistic device (if there are any), semantic focus. In order to cover as many types of fear description as possible on the one hand and to determine the semantic field on the other hand, examples are taken from various genres of literature, such as detective stories, classic literature, psychology (in conformity with children and with adults) and science fiction.

While filling in the Dbase one of the problems was how to determine the "type" of fear, that was described in this or that example (we had to choose the type from "anxiety" to "phobia"). In most cases a micro context was enough for that (it is called "context" in the Dbase itself), where the exact emotional state was obviously shown or there were some circumstantial evidences. If it was impossible to determine the exact emotional state from the microcontext, we had to use microcontext, that sometimes reached the full story.

There are about 300 examples of verbal description of "fear" in the Dbase so far. The database is able to find all examples that contain a particular word (or a sequence of letters "lemma"), show types of fear against each example (that were found in the database) and calculate the percentage of each type of fear mentioned. There is also a roll of separate words and the analysis of keywords by parts of speech to be found in the Dbase.

REFERENCES

1. Frick R.W. The prosodic expression of anger: differentiating threat and frustration. *Aggressive behavior*, 12, 1986.
2. Scherer K.R., Wallbott H., Summerfield A. Experiencing emotion. A cross-cultural study, 1986
3. Viliunas V. K. Psychology of emotional phenomena. - Moscow : MGU, 1976. (In Russian).

4. *Potapova R.K., Potapov V.V.* Temporal correlates of emotions as a speaker-state specific parameters for forensic speaker identification (speech temporal correlates of fear/anxiety for russian native speakers), 2002. (In Russian).
5. *Potapova R.K.* Speech: communication, information, cybernetics, M.: USSR, 2001. (In Russian).