

Meaning as Use: a communication-centered
approach to lexical meanings

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Abstract

This is a working draft of the book. Please send your comments to the author.

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Part I

The Theoretical Exposition

Part II

The Comparative Lexicogrammatical Cartography

Chapter 7

The Core Lexicon of Emotions

The chapter presents a contrastive corpus-based study of the core lists of words that can indicate emotions in English, German and Russian. First, it defines a methodology for collecting the core lexicons on the basis of corpus evidence and presents the results for the three languages. Then, it presents another systemic network that links words to communicative intentions they can realise. The chapter ends with a more delicate study of words signaling anger in the three languages.

7.1 Introduction

The study of emotions has a long and venerable tradition in psychology. A paper or book that describes the language of emotions often refers back to works of James, Wundt, if not Aristotle. Yet the topic of the lexicon of emotions has been actively discussed recently (at least for English).

In psycholinguistic studies of emotion, we can find two approaches for defining a word list for emotions: analysis of the structure of the field vs. elicitation of responses, e.g. descriptions of situations.

According to the first approach, as defended by (Ortony et al., 1988) or (Johnson-Laird and Oatley, 1989), word lists of emotions should include only clear instances of emotions that conform to several tests, for instance, they refer to internal conditions, are clear cases of emotion-related states, rather than actions, and have affect, as opposed to behavior, as their predominant referential focus. Words in such lists should also pass some linguistic tests, such as the requirement that both expressions “feeling X” and “being X”

refer to emotions. For instance, since *being ignored* does not refer to an emotion, the word *ignored* should not be in the list of emotions (Johnson-Laird and Oatley, 1989:84).

According to the second approach, as defended by (Storm and Storm, 1987), emotion lists are based on words that are spontaneously produced by subjects in the process of retelling a story or describing emotional states of participants from a picture or a film, cf. also the recent study by Dewaele and Pavlenko (2002). Since lists of the second type come from subjects with various degrees of language awareness and habits for talking about emotions, the lists are eclectic. Even though researchers may block expressions that refer to emotions only occasionally, like *fat*, *old*, *thirsty*, which are treated as low-quality terms by Storm and Storm (1987:809), the majority of words used by subjects for indicating emotional states are kept in their lists. The list of Storms includes, for instance, such labels referring to pleasure as *fantastic*, *great*, *super*.

It is not surprising that they can be considered as parallel to the distinction between the logic-centered paradigm, which considers words as instances of concepts, and the communication-centered paradigm, which treats words with respect to their use in communication. So the two approaches exhibit complementarity in terms of their intentions and results. Both intend to collect comprehensive lists defining the semantic field of emotions in English. However, as the result of different attitudes to their composition, respective lists differ in the inventory of concepts (see the comparison in Section 7.3 below). The situation with data collecting for German and Russian is even worse, as they lack even widely accepted lists of about 500–1000 terms.

The approach of the first type is better aimed at studying the referential structure of the affective lexicon, i.e. the lists are produced for studying *concepts* related to emotions, but such lists are less suited for studying *expressions* that describe emotional states in naturally occurring communication. First, such lists are based on emotional concepts, but other ways for realising emotional concepts are missed. For instance, while the word *fury* is listed, the list does not include *furious*, *furiously* or *infuriate*. Sometimes nouns are favored for methodological reasons, cf. (Zammuner, 1998).

Approaches of the second type are aimed at studying the range of expressions used for referring to emotions. Thus, they are better suited for studying expression of emotions in corpora, but they collect data in artificial settings, in which elicited responses may differ from normal ways for communicating one's feelings. For instance, in the classification of Storm and (Storm and Storm, 1987), terms referring to desire (*longing*, *want*, *yearning*)

are subsumed under the class of negative emotions, because, in the context of their study they imply the absence of something desired, however, uses of words referring desire often occur in the positive context and with positive intentions, for instance,

(7.1) *People wanted to know who this talented designer was.*

Second, it is intuitively clear that some terms, such as *impudent*??, are relatively rare, and they do not belong to the lexicon of everyday speech. However, no statistical data concerning the frequency of uses of emotion words are typically provided in psycholinguistic studies. One exception is the old list from (Davitz, 1969).

Third, terms for emotions do not correspond to uses of words. For instance, *emotion/emotional* is treated as the most general term of this class of words in (Johnson-Laird and Oatley, 1989), yet when it is used in texts, it most frequently refers to a *strong negative* emotion:

(7.2) *...nor was I sorry to break an emotional series that threatened to burden me with...*

Fourth, psycholinguistic studies pay little attention to the inherent polysemy of emotion lexemes. Happiness/sadness is considered as one of the most prototypical emotions (Zammuner, 1998), but uses of the word *sad* are not uniform. For instance, (CCED, 1995), detects various senses of *sad*, such as *sad mood*, *sad events* (an unsatisfactory or undesirable event or situation), *sad stories* (they cause sadness), *sad old bikers and youngsters* (the expression designates the lack of respect for the participants), as well as fixed expressions like *I'm sad to say*.

The history of studying emotions in lexical semantics also dates back to origins of the field, cf. (Geeraerts, 1988). The topic was actively discussed, in particular, within the framework of Meaning-Text Theory (MTT), e.g. by (Iordanskaja, 1973), (Mel'čuk and Wanner, 1996), the theory of semantic primitives, e.g. by Wierzbicka (1998, 1999), (Harkins and Wierzbicka, 2001), and cognitive linguistics, e.g. by (Averill, 1974), (Kövecses, 1990). In comparison to psycholinguistic studies the range of emotions used in lexical semantics studies is limited: typically a few words are considered,¹ however, the description includes much more details concerning each lexical item.

¹(Mel'čuk and Wanner, 1996) is an exception: they consider 40 emotion nouns in German, though the study is restricted to nouns and can be hardly comparable to hundreds of words used in psycholinguistic studies.

In addition to the restricted coverage, research in lexical semantics is mostly based on intuitions of researchers and pays little attention to real uses of emotion words. For instance, Apresjan (2000:213) uses the following definition of the Russian word *strax*:

- (7.3) *Strax X pered Y; X's fear of Y = an unpleasant feeling caused in X by Y; this feeling usually occurs when a person perceives or imagines something which in his estimation presents a serious danger to him; his soul feels something akin to what his body experiences when he is cold; his body reacts to this as it reacts to cold; the person experiencing this feeling wishes to become invisible; if the feeling of danger increases in intensity he may lose his self-control and start running or shouting.*

Even though the definition explains some idioms (like *похолодеть от страха*, to turn cold from fear) and covers some cases of metaphorical uses:

- (7.4) *холодная и как бы чешуйчатая сторона моего гневного молчания наводила, бывало, на Валерию невероятный страх.
The cold and scaly quality of my displeased silence, used to frighten Valeria out of her wits.*

it has no relationship to many other uses of this word:

- (7.5) *Сначала, из страха возбудить подозрения, я охотно платил за ...
At first, in my dread of arousing suspicion, I would eagerly pay for ...*
- (7.6) *Осторожней, прошу вас, - закричала Алиса, подскочив со страха.
Oh, PLEASE mind what you're doing!' cried Alice, jumping up and down in an agony of terror.*
- (7.7) *Дело в том, что я испытываю страх перед автомобилями.
You see, I have a fear of cars.*

Also, the definition in (7.3) does not help in explaining the relationship between different words (*dread, fear, frighten, terror*) functioning as translation equivalents of *страх* in (7.4)-(7.7). What is the semantic core of *страх*, so that it can cover meanings of these English words? What are different facets of the meaning of *страх*, so that they allow its translations

in such expressions? Finally, the definition also does not help in distinguishing between different ways to refer to the state of fear in Russian, e.g. *ужас*, *бояться*, *опасаться*, *испугаться*, etc. Similarly, the study of expressions of anger by (Wierzbicka, 1998) provides definitions for just three words (*anger/angry* in English, and *гнев*, *сердиться/сердитый* in Russian) and does not address many other words that are used to refer to anger in English and Russian, e.g. *annoyed*, *livid*, *outraged* or *sulky*.

The current chapter presents a study of the basic means used for communicating emotional states in English, German and Russian. The study tries to overcome both the restricted scope characteristic for research in lexical semantics and the restricted coverage of lexico-semantic phenomena characteristic for research in psycholinguistics. Also, researchers in lexical semantics often make claims about meanings of lexical items on the basis of their linguistic intuition, but the validity of the claims is limited to properties immediately evident to a researcher. However, as examples (7.4)-(7.7) and the study of words referring to anger (Section 7.5 below) show, some hypotheses do not allow an extension to a larger context of language use. The present study does not rely on intuition alone, it is based on evidence for uses of words from representative corpora.

Section 7.2 outlines the methodology for collecting core lexicons of emotions in English, German and Russian on the basis of corpus evidence. Section 7.3 presents the results of collection for the three languages. Then, Section 7.4 explores the basic options available in the three languages for expressing emotions using the core lexicons. The result of the study is stored in a multilingual database of emotion words, which encodes options for their uses and translations. Finally, Section 7.5 is a case study of specific options for using words that signal anger in English, German and Russian.

7.2 The goal of the study

As noted above the two paradigms in lexical semantics offer two complementary perspectives. For instance, the aim of my study is similar to the project of Anna Wierzbicka to describe and compare emotions in different cultures, see her multiple works on the topic, e.g. Wierzbicka (1998, 1999). The similarity also concerns the assumptions made in the two studies: emotional concepts are not innate, words that describe emotions are specific for a given language, but the multitude of words available in each language can be described in terms of some basic language-independent categories. Thus, the goals of the Natural Semantic Metalanguage used by Wierzbicka and

the multilingual systemic network described below coincide.

The difference between the two approaches is once again related to the difference between the logic- and communication-centered paradigms. The focus of Wierzbicka's studies is on emotion-related culture-specific concepts, which are exemplified by means of respective words, while the focus of my research is on the relationship between words and emotions: the speaker uses emotion-related words to express intentions referring to emotional states. ??words as resources from JAL, anger example

Another difference concerns the method of research: Wierzbicka's studies are based on linguistic intuition and information stored in dictionaries, while the present study is based on representative corpora, even though it takes into account linguistic intuition and dictionaries.

The aim of contrastive corpus-based analysis of basic options for talking about emotions English, German and Russian has led to the three tasks:

1. to collect lists of most frequent words in the three languages;
2. to analyze their uses in naturally occurring communication;
3. to compare their uses across languages (both independently in respective monolingual corpora and as translation the aligned parallel corpus of literary texts).

The procedure for collecting word lists is aimed at the more or less reliable detection of cases, when emotional states are expressed in a text. This provides a resource for corpus-based investigations, which can use sublists of the structured list for searching instances of expressions referring to emotions in the naturally occurring discourse (written or spoken).

The orientation of the study towards corpus research differs from word lists of emotions collected in psycholinguistics. Any corpus study is based on simple forms. In this case, we look for *words* that may signal an expression of emotions, not for emotion *concepts* per se. However, the goal of our research is to study *meaning intentions* for expressing an emotional state. Respective meaning intentions can be expressed in several ways:

1. directly by lexical means referring to emotional states, e.g. *anger*;
2. indirectly by lexical means using words with emotional implications, for instance, evaluations (*fool*, *great*) or words referring to behavioral properties of emotional states (*cry*, *frown*);

3. indirectly by grammatical means, e.g. unhappiness can be expressed by *down*, when it functions as an attribute: *The old man sounded really down.*
4. indirectly by pragmatic implications, e.g. “*What?*” can express anger, interest, or fear (e.g. “*What?*” cried Arthur, backing away still further in the context of “Hitchhiker’s guide”) or be completely unrelated to emotions.

The last two options cannot be used in corpus-based studies, because detection of emotional states expressed by grammatical means requires deep syntactic and semantic parsing of corpora, while detection of emotional states expressed by pragmatic means requires understanding of texts.

Since detection of emotional states by lexical means is based on simple matching of word forms, even the first two methods do not always produce reliable results. For instance, terms that are typically considered as emotions, e.g. *afraid*, can be used for purposes that have no relationship to expressing emotions, e.g. *I’m afraid I can’t help you.* However, such uses are relatively infrequent in comparison to emotion-laden ones and can be filtered out from the concordance, e.g. using a simple pattern: “I am afraid PRONOUN” without any extra syntactic analysis. Also, in German, even detection of lexical items requires shallow syntactic parsing in the case of separable verb prefixes, e.g. *an|tun* (to harm), *auf|regen* (to annoy), *nach|trauern* (to mourn): *du regst mich auf!* (you’re getting on my nerves).

On the other hand, some words may refer to emotions only occasionally. For instance, *flush* and *transport* are listed as emotions in (Johnson-Laird and Oatley, 1989); *flush* can refer to a sudden strong feeling, while *transport* to delight (example??). However, if instances of such relatively frequent words were included in the target list, the noise level would be too high, i.e. the vast majority of their uses that could be found in texts, would not refer to emotions. Because words in corpora are often disambiguated with respect to their part of speech, such words as *content* (adjective) or *long* (verb) can be included in the target list.

Another difference concerns such words as *cry* or *frown*, which are omitted from the list of (Johnson-Laird and Oatley, 1989), but for the purposes of corpus studies they should be included, because they provide reliable indications of the emotional state of a person, and can be the only indications available in texts, when we search for expressions of emotions on the basis of lexical cues. !! Even though evaluations, e.g. *excellent*, *good*,

bad, and personal traits, e.g. *choleric*, *optimist*, *sentimental*, are not considered as emotions, they can also be included in the target list because of the following reasons. First, evaluations provide good indications for the speaker's attitude towards an object. Second, intentions aimed at evaluation of an object are systematically related to emotions proper: *good* to *pleasure* and *enjoyment*, e.g. if I say that *something is good* I declare that *I like it*; *a bad/sad/terrible story* is related to the respective mood. Similarly, personal traits are also systematically related to short-term emotional episodes, which often bear the same name, e.g. *anxious*. Finally, such words are spontaneously produced by subjects, whose task was to describe a story, cf. various studies aimed at elicitation of descriptions of emotionally charged situations, e.g. word lists in (Storm and Storm, 1987), (Scherer, 1988), (De-waele and Pavlenko, 2002).

When we study verbal expressions of emotions in a corpus, two questions should be considered: why the emotional state of a person is at all expressed and what options are used by the speaker for delivering the emotional state by means of linguistic resources available. With respect to the first question, literary texts constitute a specific discourse type, in which emotional words are used to develop a narrative. Corpus-based research can only study explicit statements referring to emotions, but emotions are not expressed via a closed set of words and are often hidden by participants. However, authors of novels use additional means to present the inner state of interlocutors. In the following examples, nothing in the statements themselves suggests the anger of Alice except the comments from the author:

(7.8) *'Is that all?' said Alice, swallowing down her anger as well as she could.*

(7.9) *'There's no such thing!' Alice was beginning very angrily.*

Even when emotional words are used in speech, as the spoken language part of the Bank of English shows, they often occur when one participant retells a story or describes an event:

(7.10) *we had someone calling us very very angrily saying that you're saying that we...*

(7.11) *last time I voted out of fear and it was the wrong reason to vote*

Finally, literary texts provide a lot of contextual information, which helps in analysis of meaning intentions of the speaker. For instance, if we analyze expressions of anger, contextual information provided in texts includes

reasons of anger, conditions in which it originated and developed, as well as the history of references to the character as being typically anxious or calm, etc.

As for the second question: what options are used for telling about emotions, the choice of words for telling about emotions in literary texts may differ from the lexicon used for other types of communication, most importantly from expressing emotions in ordinary life in spoken language. The most significant difference is related to the fact that literary texts typically use a richer and more expressive vocabulary and the word choice may be idiosyncratic for a novelist. A careful corpus-based study should also compare expressions of emotions in literary texts and in spoken language. Unfortunately, modern spoken language corpora are not comprehensive: they are small and specialised. For instance, the spoken language section of the BNC constitutes just 10% of the total corpus and largely consists of public speech (recordings of lectures, interviews, meetings) and the corpus of London teenagers, so it is not representative with respect to ways of expressing emotions in ordinary communication in English. What is worse, the German and Russian corpora used in the study practically lack the spoken component (the size of the Russian spoken component is about 200,000 words). Thus, literary texts, which try to reflect spoken communication in natural conditions, provide the best currently possible approximation for studying emotional expressions.

The same argument also applies to the use of translations. Translators make their choices in a way different to choices made by persons in similar situations (very much like authors of literary texts in comparison to naturally occurring communication). Also, a translated text describes situations, which may be foreign or less natural to the culture of the target language. However, aligned corpora provide a rare opportunity to check similarities and differences of the lexicogrammatical resources of different languages with respect to expressing essentially the same emotional state in well-defined contexts. This kind of measurable empirical evidence of word uses across languages is not available in bilingual dictionaries, which list typically decontextualised translation equivalents and are biased in various respects, cf. (Sharoff, 2002), (Wierzbicka, 1999).

7.3 Collecting the list of emotions

7.3.1 Methodology

A corpus-based study of lexicogrammatical means for delivering possible meaning intentions in a domain starts with selecting a list of most important lexical items that can serve as reliable indicators for emotions.

Compilation of the list of English emotion words started with the list of 508 words taken from the study in (Storm and Storm, 1987); the words that rarely refer to emotions were excluded. The decision on the frequency of emotion-related uses was supported by the evidence from the BNC and the subset of the Bank of English included in the electronic version of (CCED, 1995). For instance, *pressure* was left in the list, unlike *small* and *electric*, since uses referring to emotional pressure (*under pressure*, *pressure from/on*) are more frequent than references to physical force. Similarly, *heart* in the two corpora occurs typically as a reference to one's feelings, e.g. *broken/joyous heart*; *her heart was beating*, etc. Another words list for English has been compiled on the basis of the list of 31 basic classes of emotions from (Weigand, 1998). The set of lexical items in the classes has been extended by means of the thesaurus of the electronic version of (CCED, 1995); this resulted in a list of 531 words with high variability over parts of speech.

The combination of the two lists (904 words in total with only 135 words in the intersection) has been further extended with the list of 590 words taken from (Johnson-Laird and Oatley, 1989). This added 269 words to the list (many of them were alternate, e.g. *fervent* was added to *fervour*). Finally, some morphological variations were added, if they didn't enter the list already (mostly verbs and adverbs). The final list of 1191 collected emotion-related words has been checked against the list of 4000 most frequent words in the BNC, the frequency data are from (Kilgariff, 1996). Lexical items were also filtered with respect to their POS tags, e.g. adjectival uses of *long* or non-adjectival uses of *content* were not included. Also, even though both nominal and verbal uses of *concern* can refer to emotions, the corpus study shows that its verbal uses referring to emotions are quite infrequent. This leaves 253 words for the final list considered below (the words of different parts of speech, e.g. *care*, are counted separately; participles functioning as attributes, e.g. *concerned*, are counted separately from verbs).

The list of emotion words in Russian was produced by translating the most frequent emotion words from the English list using ORD (2000) and extending it with words taken from (Jarantsev, 1976). This gives 807 lexical

items, which were filtered against the list of the 4000 most frequent words in the Russian Reference Corpus. The final Russian list contains 309 words.

The list of emotion words in German was also compiled from two sources: the list of 128 words from Appendix F in (Scherer, 1988) and translations of words from the English list. The total list comprises 664 words.²

7.3.2 Results

The final lists for English and Russian by themselves allow important observations. First of all, various lists of words referring to emotions include many relatively rare words, which do not belong to the core lexicon of English. Also, the most frequent words in the list do not refer to emotional states, but to emotional goals (*want, need, demand*) or evaluations (*good, great, fine*). Even though some of their uses are not related to emotions, e.g. *I'm not very good at singing*, in many cases evaluations include an emotional component, e.g. *It's so good to hear your voice after all this time*.

Also, the lists shed light on the claimed paucity of positive emotions: even though there are fewer words referring to positive emotions in the final lists of all languages considered, the relative frequency of references to positive emotions is significantly higher. For instance, the total frequency of words expressing positive emotions from the English list is 7894 ipm vs. 3222 ipm for negative emotions. If only inner states are included into count (because evaluations are indirect indications for emotions), the distribution still holds: 5322 ipm for positive emotions vs. 1786 ipm for negative ones, cf. the studies on the topic in (Averill, 1980; Zajonc, 1968). The count is based exclusively on the frequency of respective words in the BNC. The calculation cannot take into account contexts of their uses, so it includes cases, when emotion-related words are used for non-emotional purposes (cf. the examples with *good* and *afraid* above), and it does not distinguish contexts, in which positive or negative emotions are modulated by negation, doubt or the subjunctive mood. Anyway, the diverting factors are applied to both positive and negative emotions, and the study confirms at least that positive emotions are *discussed* more frequently.

The comparison of the English and Russian frequency lists shows that both begin with words referring to desire (*want, need, wish, хотеть, нужно*) and evaluations: positive (*good, great, хороший, великий*) and negative

²The figure differs significantly from English and Russian ones, partly because of the difference in emotional lexicons in the languages, and partly because verbs and participles and adverbs derived from them, as well as adjectives and respective adverbs were joined into a single entry for counting German words.

(*bad*, *плохой*), as well as curiosity (*interest*, *интерес*). There are some differences among uses of the most frequent words: *hope*, *suffer* are on the top of the English list, unlike their Russian translations, while *счастье* (happiness), *радоваться* (rejoice), *любить* (love), *удивительный* (astonishing), *обузда* (offence), *горе* (grief, disaster) are significantly more frequent in the Russian list.

The comparison of frequency lists can help in studying the cultural influence on the emotional lexicon. For instance, Wierzbicka (1999:401) points an important feature of the Anglo-Saxon culture to suppress the expression of emotions and contrasts it to openness in the expression of emotions in the Russian culture. The frequency lists of emotion words support the difference: the list of the most frequent emotion words in Russian (309) is larger than the English one (253), even though the original Russian set was smaller. Also, the total frequency of emotion-related words in Russian is 23913 ipm against 17456 ipm in English. Such Russian words as *счастье* (175 ipm) and *радость* (126 ipm) are significantly more frequent than expressions referring to happiness in English and refer to an emotion stronger than happiness: they better correspond to *joy* and *elation*, which are quite infrequent in the English lexicon.

	verbs	nouns	adjectives	adverbs	Total
English: ipm	5893	5497	5760	306	17456
English: %	34%	31%	33%	2%	100%
Russian: ipm	7271	7755	7025	1862	23913
Russian: %	30%	32%	29%	8%	100%

Table 7.1: Uses of emotion words with respect to parts of speech

However, the comparative study of the complete emotional lexicon saves from potential errors of overgeneralisation, as for example, another claim by Wierzbicka (1999:398ff) that emotions in Russian are conceptualised as activities, which happen with a person, and are typically realised by verbs, whereas emotions in English are conceptualised as states and are realised by adjectives or nouns. The test is given in Table 7.1, which lists the frequency of English and Russian words referring to emotions both in terms of their frequency in respective corpora and their distribution between parts of speech. No preference for verbs in Russian over English can be detected in the data. The only significant difference is that adverbs are more frequent in Russian. However, it is based on a difference in syntactic patterns: such En-

glish constructions with adjectives as *He was afraid/glad/sad* are rendered in Russian using adverbs:

- (7.12) *Ему было страшно / приятно / грустно.*
 He-dat was afraid-adv / glad-adv / sad-adv.

7.4 The framework for uses of emotional words

The systemic network is not aimed at classification of *words* and not at classification of *emotional concepts*, but at classification of *meaning intentions*, which refer to emotional concepts and can be realised in speech by choosing a specific word, so that it describes the experience construed as linguistic meaning (Halliday and Matthiessen, 1999). For instance, *sad* can refer to both emotional state and to evaluation of an information carrier (*story, song*, etc), so the two types of uses of the word *sad* correspond to two different sets of features selected in the network. On the other hand, intentions are systematically related to words that realise them by constraining available lexical options.

Features in the systemic network are based primarily on the properties of emotion-related expressions in texts and only secondarily on psycholinguistic intuitions concerning the emotion in question. Out of this reason, the analysis was based on uses of the words in the corpus as well as on their senses detected by (CCED, 1995). When a choice is described as [neutral], this means that other options in the set of features are irrelevant for choosing a lexical item. For instance, the options of [intense] and [moderate] intensity are not applicable for *surprise*, as it can be either great or little and can freely combine with any degree modifiers. Thus, the word *surprise* is marked as neutral, so it can be used for designating various possible intensities. This is different from *shock*, which is naturally used to realise the intention of [intense] [negative] surprise.

The network discussed below benefits from several other classifications of emotion words, including psycholinguistic (Ortony et al., 1987), (Storm and Storm, 1987) and lexicosemantic studies (Mel'čuk and Wanner, 1996), (Bresson and Dobrovol'skij, 1998). Classifications made from the perspective of lexical semantics pay little attention to proper analysis of emotional states (the only distinction typically made concerns the opposition between positive and negative emotions), while psycholinguistic classifications typically miss properties manifested in lexical co-occurrence, e.g. the intensity or style. Synergy of the two perspectives improves coverage of the semantic field.

Acceptance: positive vs. negative vs. neutral.

This is the typical distinction between positive and negative emotions: *good, happy, sympathy* (positive) vs. *bad, sad, antipathy* (negative) vs. relatively few neutral emotion states: *interest, surprise* (though their expressions in texts most typically refer to positive or negative acceptance). This is probably related to the fact that the expression of emotion is aimed at negotiating the interpersonal relationship with the hearer, so marking the emotional attitude as positive or negative contributes to evaluation of the inner state, object or event from the speaker's viewpoint.

Mel'čuk and Wanner (1996) reject the distinction between positive and negative emotions as ambiguous and prefer the following opposition: pleasant vs. unpleasant, because in their view *Schadenfreude* should be classified as a pleasant emotion, even if it has a negative social value, while *compassion* (*Mitleid*) is an unpleasant feeling, even if it is socially approved. The classification of Johnson-Laird and Oatley (1989), on the other hand, makes no distinction at all between positive and negative emotions. Their five basic classes include *happiness* and *sadness* (the positive and negative counterparts) together with *fear, anger* and *disgust*, which positive counterparts (e.g. *undaunted, calm* or *delight*) are defined as causes or relations with respect to *happiness*.

Indeed, the classification is not straightforward,³ as there are several levels at which positive and negative emotions can be distinguished: psychophysical acceptability, social acceptability, and lexical behavior, e.g. collocations of respective lexical items. If we want to make a distinction between several options (and represent them as features in the systemic network), what is the purpose of doing this? In the case of our network, the distinction between positive and negative emotions is used for delienating and ordering lexical options through which the speaker can realise his/her meaning intentions in the current lexicogrammatical context. Some emotions imply a polarity of states, e.g. *happiness* vs. *sadness*. Even though the states at the two opposite poles are not completely symmetrical in terms of the content of emotional states (cf. Tolstoy's "All happy families resemble one another, but each unhappy family is unhappy in its own way."), words designating the states form a natural opposition, e.g. *excitement* or *patience* vs. *depression* and *anger*, so that a set of terms constitutes a semantic field which members share some properties and differ in others. For instance, *glad, happy, sad* and *unhappy* share some collocates, such as people (*boy, girl, woman, customer*), events (*affair, circumstances, news, situation*), pe-

³See also the psychological treatment of the distinction in Averill (1980:19ff).

riods of time (*childhood, day, year*).

The principle for assigning the feature of [positive] or [negative] in the network depends on the answer to the following question: does the speaker intend by using this word or expression to communicate his/her approval or disapproval of the emotional state? For instance, the choice of *compassion* implies a positive attitude from the viewpoint of meaning intentions, while *Schadenfreude*—negative, contrary to the classification used by Mel’čuk and Wanner (1996). This is also confirmed by their definitions in (CCED, 1995): **Compassion** is a feeling of pity, sympathy, and understanding for someone who is suffering vs. If someone **is gloating**, they are showing pleasure at their own success or at other people’s failure in an arrogant and unpleasant way.⁴ There is no reason to classify the two expressions in the network describing word uses in the opposite way. The word similarity search shows that words which lexical behaviour is similar to *compassion* are *honesty, courage, sympathy, integrity, patience, sensitivity, decency, empathy, dignity, respect, patriotism, kindness, admiration, wisdom* (see the description of word-similarity detection methods in Section 3.2). Similarly, it is natural to classify *defiance* as [negative] for our purposes, because it is a negative evaluation of someone’s behaviour, even though a defiant person does not necessarily “feels something bad” (using Wierzbicka’s terms).

From the viewpoint of uses, the acceptance of situations denoted by some words may differ from their basic senses in dictionaries: *feeling* is a neutral general term, but it is most frequently used in negative contexts in modern English: feelings of anger, hunger, tiredness; feelings are frequently hurt or offended; *I had a strange feeling in the back* refers to pain, etc. This does not mean that *feeling* as a word is annotated as a negative emotion, but its *uses* are typically annotated as realisations of reference to negative emotional states.

Intensity of emotion: intense vs. moderate vs. neutral

All emotions that are expressed are strong enough to take care about them, at least, no lexical items referring specifically to small emotions are available in the languages under consideration. However, names for many emotions can be arranged along a scale: *fury, anger, irritation*. Apart from differences in the lexical choice, the difference between strong and moderate options is based on their possible lexical collocations (Mel’čuk and Wanner, 1996): [intense] emotions do not co-occur with “mitigators” (e.g. *slight*), while [moderate] emotions are rarely used with intensifiers, and even being intensified, they do not reach the intensity of [intense] emotions: *extreme*

⁴*Schadenfreude* is not listed in CCED.

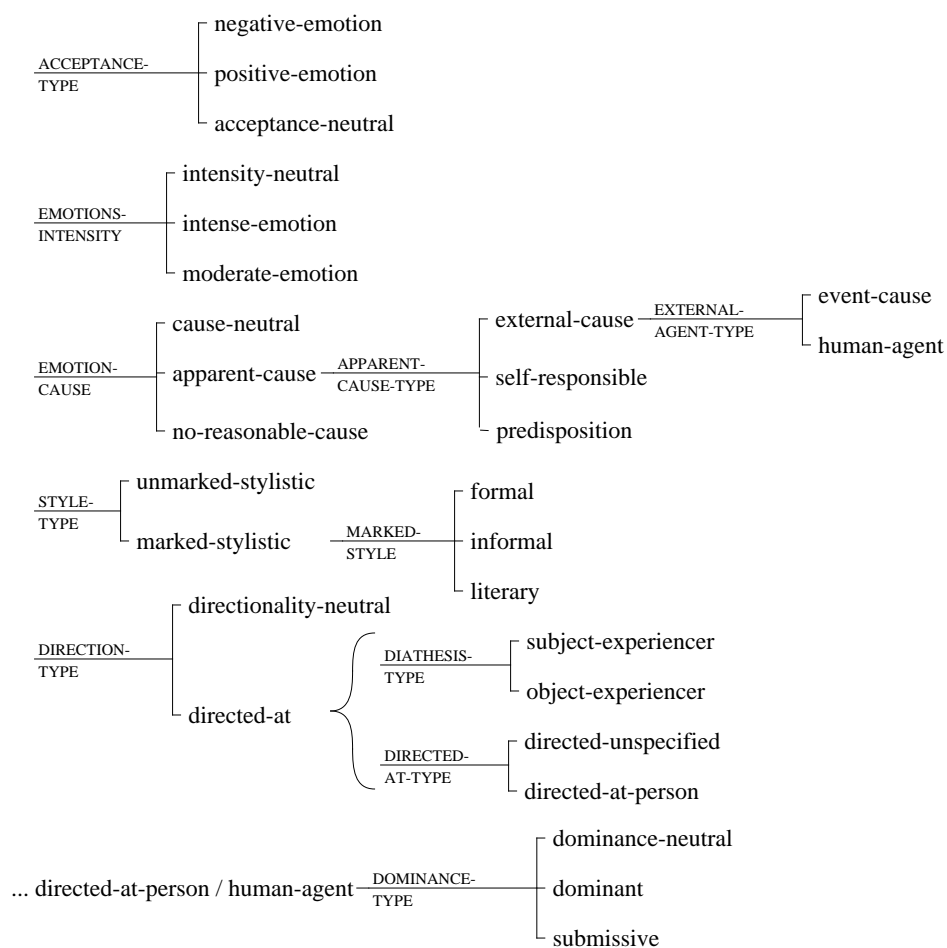


Figure 7.1: Basic options for expressing emotions

irritation does not reach the level of *fury*.

The cause of emotion: apparent vs. unreasonable vs. neutral

There are specific lexical means for referring to one's emotions, which lack an apparent reason, e.g. in English *petulant* means unreasonably angry; also *нечные спраxu* in Russian refers to one's worries without a cause, *спрауцать* - to frighten without a cause for fear. In the case, when causes are explicit (either because of lexical semantics of the word denoting emotion or the immediate lexicogrammatical context of the utterance), there are three possible options: the self is responsible (e.g. *guilty, shame, sorry*), there is an external cause (*humiliated, pleased, suffer*) or there is a predisposition (*shy*)⁵. Finally, the external cause of an emotion can be attributed to a human being (*anger, humiliated*) or to an event (*suffer*). Emotions, which causes are attributed to a human being, can have specific interpersonal options, see below.

The directionality of emotion: directed-at vs. directionality-neutral

Directed emotions can be directed either at a person or an object, which is considered as the necessary participant of an emotional state. Some words that can be used in this class have specific grammatical properties, e.g. transitive verbs: *enjoy, fear, want*, and respective nouns, but also *care, be interested, worry*.

The first option available for [directed-at] cases concerns the type of the participant to which the state is directed: whether it is specifically human (*grateful, threaten, trust*) or the participant type is not specified.⁶ There can be a grammatical difference between the two options, e.g. the two definitions for *care* from (CCED, 1995):

(7.13) *If you care about something, you feel that it is important and are concerned about it.*

(7.14) *If you care for someone, you feel a lot of affection for them.*

The second option available for [directed-at] cases concerns the diathesis type: whether the emotional state extends towards its object, i.e. the experiencer of the emotional state is the subject of transitive verbs in the active voice (*enjoy, miss, trust*), or the emotional state extends towards the

⁵The options mirror classes 1.1.1, 1.1.2, 1.1.3 in (Storm and Storm, 1987).

⁶Another option is theoretically possible: directed-at-object, but in the lexical stock under consideration there is no word or use type that can refer to an object and cannot refer to a human being. *Care* from (7.13) can be used with respect to a person: *I'm curious to see if there really is another person in this world you care about.*

subject, i.e. the experiencer of the emotional state is the object of transitive verbs in the active voice (*disturb*, *please*, *upset*). Cf. the difference between *wish.verb* and *wish.noun*: the first one is a transitive verb, so it is always [directed-at], but the second one can be general:

- (7.15) *The custom is for people to try and eat 12 grapes as the clock strikes midnight. Those who are successful can make a wish.*

There is a group of two dimensions that pertain to stylistic properties of the expression:

Style of expressions: marked vs. unmarked

The most frequent expressions referring to emotions are stylistically unmarked. The marked options are: [formal], [informal] and [literary]. Good test questions for choosing the options are negative: do you expect to encounter this use in an informal setting? If no, then [formal]; e.g. *aspiration*, *assurance*. Do you expect to encounter this use in a formal setting? If no, then [informal]; e.g. *mad*, *sick*. Do you expect to encounter this use outside of professionally written texts (such as novels, memoirs, etc)? If no, then [literary]; e.g. *anguish*, *longing*. The [literary] feature is often realised by means of idiomatic expressions, e.g. *blood runs cold* for fear.

Another option potentially possible for this choice is [old-fashioned], but by the very nature of the list of most frequent words, old-fashioned words do not occur in it. Also, when an old-fashioned word is used, most often this occurs within the context of professionally written texts. If it is used by a person, who is not aware of its obsolete status, then the intended meaning which is realised by its use cannot be considered under the option [old-fashioned].

Person type: personal vs. impersonal

This choice corresponds to the intention of the speaker to present the emotional state in personal terms (the default choice) or impersonalise it. For instance, desire can be expressed more impersonally by choosing: *I need* vs. *I want*. The [impersonal] option often co-occurs with [object-experiencer] for directed processes:

- (7.16) *It pleased him to talk to her vs. He enjoyed talking to her.*

Finally, there is a complex network of emotional states presented in Figure 7.2.

Emotional conditions: inner-state vs. evaluation vs. causation

The very notion of emotion concerns the inner state of a person, an ‘emoter’; this is the default choice in the network (in this respect, animals

and social institutions are treated as persons: they can *hope*, *suffer*, *demand*, etc). However, many words in the resulted lists of emotions can be applied to emotion-laden evaluations (*good*, *beautiful*, *excellent*) or they occur mostly with respect to an emotional state (*shake*, *lover*, *unexpected*). Their uses also share the same set of features (acceptance, intensity, expectation, etc). The classification pertaining to evaluation or causation of emotional states is outside of the domain of emotions proper; for various options in the lexicogrammar of evaluation, see (Martin, 2000).

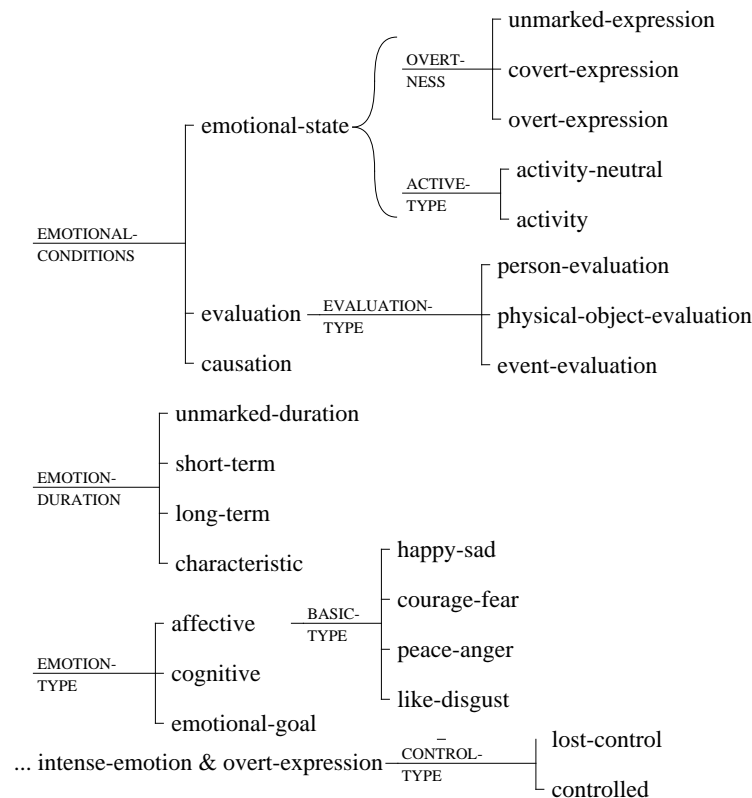


Figure 7.2: Options for expressing emotional states

Subtypes of inner states: emotional-state vs. emotional-goal.

According to the terminology used in (Johnson-Laird and Oatley, 1989), desires are treated as emotional goals; this helps to distinguish them from emotional states proper. Unlike causations and evaluations, they share with emotional states the availability of the subject to which the inner state is

ascribed; an inner state can possibly have duration and can be judged with respect to its manifestability.

Subtypes of emotional states: affective vs. cognitive.

The subtypes of emotional states differ in the degree of their prototypicality as an emotion. Affective states are the most prototypical emotions like *happy*, *afraid*, *angry*, which are considered as basic emotions in (Johnson-Laird and Oatley, 1989), (Zammuner, 1998). Emotions of the cognitive subtype refer to mental states involving significant amount of mental operations: *confident*, *concentration*, *interested*. Note that even though animals can be *happy*, *afraid*, or *angry*, they can hardly be *confident* or *interested*. Ortony et al. (1987) list three components of emotional states: affective, cognitive and behavioral, which are combined in various degrees into classes: affective, cognitive, cognitive-behavioral, affective-cognitive and affective-behavioral. The class of pure behavioral conditions is left out from their list, because an emotion should have a non-behavioral component. It seems that the classification proposed in Figure 7.2 does not require a separate classification of states, because the subclasses of behavioral states can be described by the combination of two features: [overt-expression] and either [affective] or [cognitive]: *cold*, *laughing*, *wild* (affective-behavioral) vs. *care*, *determination* (cognitive-behavioral). If some emotion-related uses are clearly related to behavior and cannot be classified in the [affective] and [cognitive] subtypes, they are considered as causations of emotional states, e.g. *relax*.

The four basic subclasses of affective states are: [happy-sad], [like-disgust], [courage-fear] and [peace-anger]. They define semantic fields, which are available in the three languages and presumably in all languages, because they are related to universal features of human psychophysiology and the human society. However, lexical items in the fields and modes of their uses are language-specific, cf. the treatment of the semantic field of [peace-anger] in Section 7.5 below.

As noted above, (Johnson-Laird and Oatley, 1989) do not distinguish between positive and negative subtypes of affective states and consider *happiness*, *sadness*, *fear*, *anger* and *disgust* as five equally basic emotions. The options of [courage-fear] and [peace-anger] in the network are indeed specific in their treatment of the opposition between positive and negative emotions: they start from calmness (zero level, the normal state) and increase upward to arousal caused by something negative (thus, entering the abnormal state). As the result, they lack good antonyms (with the exception of personal traits: *brave* vs. *timid*). In the cases of happiness and disgust, the emotions stretch from the positive to the negative end of the scale providing antonyms. The difference between *fear* and *anger*: the dominant position of the experiencer

is possible for the cause of anger, while it is not possible for the cause of fear.

Duration of the emotional state: long-term vs. short-term vs. characteristic vs. unmarked-duration

Some emotional states should be persistent to justify referring to them in a specific way, for instance, *distress* implies a long-term emotion, while *a shock* can last only for short time. Long-term emotional states are closer to personal traits [**characteristic**]; there is inherent polysemy in uses of states and traits: often terms designating an emotional state are used to describe a trait:

(7.17) *The room turned and a carousel of anxious faces undulated round her.*

(7.18) *A friend of mine is a very anxious person.*

Some near synonyms have preferences for state vs. trait readings, for instance, *calm* vs. *patient*:

(7.19) *Diane felt very calm and unafraid as she saw him off the next morning*

(7.20) *He was endlessly kind and patient with children.*

The [characteristic] option here is similar to “Frames of mind” in (Ortony et al., 1987).

Overttness of expression: overt vs. covert vs. neutral

There can be two options concerning the speaker’s evaluation of one’s behavior with respect to public expression of emotion: an emotional state is explicitly manifested, vs. concealed (in the latter case the words collocate with *hide* or *conceal*). The relative frequency of the two options depends on the emotion type. For positive emotions, the overt type is more frequent (the contexts in which happiness or sympathy are described as hidden are relatively rare), while negative emotions are frequently presented as concealed: for instance, according to the collocation sampler of the Bank of English, the verb *conceal* collocates with *contempt*, *ill*, *anger* stronger than with *delight* or *excitement* (its most frequent positive collocates). The options can concern emotional goals: some goals can be explicitly *demand*ed, while some can be secretly *dream*ed of.

Activity: activity vs. neutral

Some inner states imply an activity on the side of the experiencer: *smile*, *wild*, *demand*. Expressions referring to active states naturally co-occur with imperatives and other forms of requests.

Control of one's behavior: controlled vs. lost-control

In the case of referring to inner states for intense and manifested emotions, a person can be described as either having lost control of his/her behavior (*mad*, *wild*) or as controlling it (*enthusiasm*, *demand*, *hate*).

Interpersonal relationship: dominant vs. submissive vs. neutral

In the case of states directed at a person or caused by a human agent, linguistic resources can help in distinguishing between the dominant position of the experiencer (*care*, *threaten*) and the submissive one (*humiliated*, *weep*).

The results of analysis are stored in a multilingual lexical database. The database is represented in XML and encodes:

1. general information on lexical items, e.g. their frequency and morphological properties;
2. most significant collocations;
3. examples of uses of lexical items referring to emotions as well as their translations from an aligned parallel corpus;
4. features instantiated in annotated cases in terms of the network of choices.

It is possible to select groups of lexical items according to specific criteria and consult their uses in context. For instance, if emotions in the narrow sense are interesting for a study, a subset of features for words referring only to emotional states or only to affective emotional states can be output. The search can be selective with respect to several criteria, for instance, lexical items that refer to emotional states resulting in a loss of self-control, or lexical items that designate affective states with obligatory manifestation of the state.

The next section provides a sample comparative study of words referring to anger on the basis of the classification of uses stored in the database.

7.5 Words referring to anger

7.5.1 The structure of the lexical field

Emotions related to anger are in the focus of linguistic studies, see, for instance, (Weigand, 1998), Wierzbicka (1998, 1999). Anger is expressed in many different ways and is related to a multitude of other emotional states, physiological processes or social relationships. Thus, it is impossible to design an exhaustive list of lexical items, which are used to refer to anger. For instance, there is a group of evaluations, which are often used for expressing one's anger: *evil*, *contempt*, *despise*, *rude*, or for referring to its absence: *kind*.adj. Some evaluations are relatively language-specific, for instance, the following German and Russian evaluations are much more frequent than their English counterparts: *übel* (wicked), *незодяй* (scoundrel), *подлец* (villain). Anger is the most probable emotion, when aggressive behavior is described, or when a person scolds or rebukes, either explicitly, e.g. *She cursed me*, or implicitly, e.g. a use like *Shut your gob! Halt die Schnauze! Захлопни пасть!* most probably is an expression one's anger. *Weep* or *burst into tears* also refer to a state similar to anger. Finally, there are cases of ambivalence between anger and emotional states, when a mood is related to anger, e.g. *anxious*, *disappointment*, *regret*, *upset*. In the tables below we start with a

The nature of the emotional state of anger can be encoded in Wierzbicka's style explications: "X feels something bad, because Y did something bad" (with some language-specific variations) or, more conventionally: **Anger** is the strong emotion that you feel when you think that someone has behaved in an unfair, cruel, or unacceptable way (CCED, 1995). Russian provides an impressively wide choice of expressions for referring to one's anger. Even though, English and German inventories are much smaller, they are not reduced only to *anger*/*Ärger*. Among German anger nouns studied in (Mel'čuk and Wanner, 1996): *Ärger*, *Empörung*, *Groll*, *Verärgerung*, *Verdruss*, *Wut*, *Zorn*, only *Ärger* can belong to the core lexicon of the modern German (*Wut* and *Zorn* were also included in Table 2, because of their relatively high frequency: 12 and 11 ipm according to COSMAS). On the other hand, adjectives and verbs, such as *aufregen* (to irritate), *böse* (angry), *sich ärgern* (to get angry), are frequently used for referring to the emotional state.

In the tables below we attempted to cover and classify the most frequent expressions that relatively reliably refer to the affective state [peace-anger] in the three languages. We start direct references to anger, then proceed to evaluations that are frequently related to anger, and finally cover some

terms of abuse. The tables for each language and category are split into two ranks, one covers words belonging to the list of the 5000 most frequent words (this means that their frequency is above 10 ipm), the other covers less frequent words with the frequency of above 1 ipm according to representative corpora.

Evaluations and anger-related mood descriptions are not included, because their uses most frequently realise other communicative intentions than referring to anger, but words referring to insulting or scolding are included. The lists provide additional confirmation of Wierzbicka's hypothesis that references to emotions in Russian are significantly more frequent than in English and German: the total frequencies of anger words from Table 7.2 in English, German and Russian are respectively 673, 576 and 1214 ipm⁷.

English	<i>anger, angry, annoy*, calm*, disturb, frown, frustration, furious*, offence, offend*, offensive*, patient, resentment*, temper*, violence, violent, wild,</i>
German	<i>Ärger, ärgerlich*, aufgebracht*, aufregen, beleidigen, Beleidigung, beruhigen, böse, empfindlich*, finster*, Geduld, gelassen, heftig, kränken*, reizen, Ruhe, ruhig, schimpfen, sich ärgern, streiten, verärgern, Wut*, Zorn*,</i>
Russian	<i>возмутиться, возмущаться, возмущение*, гнев, досада, злиться, злоба, злобно*, злобный*, злость, негодование*, недовольно, недовольство*, обида, обидеть(ся), обидно, обижать(ся), орать, раздражать(ся), раздражение, разозлиться, рассердиться, ругань*, ругать(ся), сдержано, сдержанный, сердито, сердиться, скандалить*, спокойный, спокойствие, ссора*, ссориться, терпеливо, терпение, терпеть, успокоиться, хмуриться*, хмурый*, ярость,</i>

Table 7.2: The most frequent words in the field 'peace-anger'

[positive-emotion]

The only word in the core English lexicon referring to the positive acceptance is *patient*.adj (*calm* does not belong to the core 4000 words; *peace*

⁷The smaller number of references to anger in German can be explained by the fact that the German corpora available for the presented research are based on newspaper texts, unlike the BNC and the Russian reference corpus. When a smaller German subcorpus based on literary texts is used, the figures are typically higher, e.g. the frequency of *Zorn* (wrath) in the Mannheimer corpus (2,54 MW) is 34.25 ipm, while its frequency in the total written-text part of the COSMAS corpus (374 MW) is 10.87 ipm.

was not included, because its uses are mostly related to international affairs). The Russian list includes *сдержанный* (self-restrained), *спокойный* (composed), *терпеливый* (patient), the German list: *Geduld* (patience), *gelassen* (calm), *ruhig* (peaceful), and some of their derivatives. The paucity of positive emotions in the lists is explainable by the nature of the [peace-anger] scale: it starts from the normal undisturbed state as the base for positive emotions, but the normal state is rarely mentioned and is hardly counted as an emotion. The positive reference occurs as an observation in situations, when the subject keeps composure and does not react in spite of someone else's "unfair, cruel, or unacceptable" behavior. The positive state is often expressed by negating the negative reference, e.g. *He did not get angry*, *Er hat keinen Ärger bekommen*, *он не рассердился*. In the cultures under consideration, the zero level of anger in such situations is typically considered as positive. The zero level of the state explains also, why no intensity modulation is used in the case of [positive-emotion] (at least, in the languages under consideration).

[negative-emotion]

The set of lexical items referring to non-zero anger can be divided into three groups:

1. expressions referring to the state directly corresponding to anger;
2. expressions referring to "submissive" anger;
3. expressions referring to a verbal manifestation of anger.

Expressions referring to the state directly corresponding to anger

It is easy to detect three groups with respect to the intensity of emotions:

[neutral]:

English: *anger*, *angry*, *temper**, *resentment**,

German: *Ärger*, *ärgerlich**, *sich ärgern*, *aufgebracht**, *böse*, *finster**, *verärgern*,

Russian: *возмутиться*, *возмущаться*, *возмущение**, *злиться*, *разозлиться*, *рассердиться*, *сердито*, *сердиться*,

[moderate]:

English: *annoy**, *disturb*, *frown*,

German: *aufregen*, *reizen*,

Russian: *досада*, *недовольно*, *недовольство**, *раздражать(ся)*, *раздражение*, *хмурый**, *хмуриться**

[intense]:

English: *furious**, *violence*, *violent*, *wild* (for no apparent reason)

German: *heftig*, *Wut**, *Zorn**

Russian: *гнев*, *негодование**, *злоба*, *злбно**, *злбный**, *злость*, *ярость*

Other ways for expressing [moderate] anger, e.g. *irritation*, are not frequent in English and German according to the BNC and COSMAS. Frequent words referring to intense emotions in English and German most typically have other types of uses, however, according to corpus studies they provide a reliable heuristics for detecting states of anger in corpora. The attribution of certain words to a particular position in the scale of moderate-neutral-intense is fuzzy, since it depends on the context of their uses. Also, the distinction between degrees of anger is fuzzy from the viewpoint of translation equivalence: a translator is relatively free to specify the degree (or, rather, free to weight the intended rhetorical impact on the reader). For instance, *раздражение* (irritation) can be presented as equal to anger:

(7.21) *I was angry, disappointed and bored,*

(7.22) *Я чувствовал раздражение, разочарование и скуку*

(7.23) *The Queen turned angrily away from him.*

(7.24) *Королева с раздражением отвернулась от него.*

(7.25) *She had been annoyed by Lo's liking me.*

(7.26) *Ее злило, что я девочке нравился.*

(7.27) *Alice felt a little irritated at the Caterpillar's making such VERY short remarks.*

(7.28) *Алиса немного рассердилась – уж очень неприветливо говорила с ней Гусеница.*

The corpus-based study of the lexical field also elucidates some claims made from the perspective of linguistic intuition. For instance, Wierzbicka (1998:20) claims that “Russian does not have a noun corresponding in meaning to the English noun *anger* (because *гнев* ≠ *anger*)”. However, as the lists above show, there are many Russian nouns in the field and they are often used (according to the aligned corpus) as translation equivalents for *anger*, e.g. *ярость* (most often as a part of the following pattern: *прийти в ярость*, lit. to come into anger), *негодование*, *раздражение*, *злоба*, *злость*:

(7.29) *swallowing down her anger as well as she could.*
с трудом сдерживая негодование. (lit. with efforts restraining anger)

(7.30) *моя злоба на Халмурадова показалась мне мелкой и стыдной.*
my anger at Halmuradov seemed petty and shameful in comparison.

What is more, *anger* and *гнев* are often used as perfect translation equivalents:

(7.31) *she stared at me with those unforgettable eyes where cold anger and hot tears struggled*

(7.32) *она пристально смотрела на меня этими своими незабвенными глазами, в которых ледяной гнев боролся с горячей слезой*

(7.33) *she gave a little scream, half of fright and half of anger, and tried to beat them off.*

(7.34) *Аня издала легкий крик — не то ужаса, не то гнева и стала от них защищаться.*
Она вскрикнула — полуиспуганно, полугневно, — принялась от них отбиваться . . .

This does not mean that *гнев* is a translation equivalent for *anger* in any context, but the aligned corpus gives evidence that *гнев* is frequently used for realising the same intention as *anger* in English. 9 times out of 15 in the aligned corpus *anger* is translated by *гнев*, though the sample is too small to be representative. For instance, another translation of (7.33) uses another anger-related word:

(7.35) *Алиса вскрикнула — полуиспуганно, полусердито, — стала от них отбиваться . . .*

The structure of the Russian lexicon of direct references to anger is based on three types of terms: *возмутиться*, *сердиться* *злиться*, which uses mostly differ with respect to the presentation of the cause of anger: the cause of the emotional state designated by *злиться* is typically unjustified (from the viewpoint of the speaker), but *возмущение* (as well as *гнев*) realises the meaning intention referring a well-founded state of anger, while *сердиться* is neutral in this respect. Also, even though *злоба* is morphologically related to *злиться*, it is typically used to refer to more intense emotions in comparison to *злиться*.

Expressions referring to “submissive” anger

The anger states described above imply an active response against the cause of anger: “I want to do something in response, and I am not dominated by the causer”. Another type of response is also possible: the subject is not inclined to fight against the causer. The subject in this case is submissive with respect to the cause of anger.

English: *offence*, *offensive**, *offend**,

German: *beleidigen*, *Beleidigung*, **empfindlich*, **kränken*,

Russian: *обиди*, *обидеть*(ся), *обидно*, *обижать*(ся)

This is an example of a state, which is foregrounded in some cultures and downplayed in others; it is rarely discussed in the studies on anger in the English-based tradition, because its lexical manifestations are not typical in English: *offence* is a frequent noun, but it often refers to legal notions, while *offend* is relatively rare (9.87 ipm in the BNC, *to be offended* – 5.03); it can also be used in the sense of generic anger:

(7.36) *“It’s a pun!” the King added in an offended tone, and everybody laughed.*

Unlike *offended*, German and Russian lexical resources referring to the “submissive” state cannot assume that the offended person has a dominant position. Out of this reason, the example (7.36) cannot be translated as *beleidigt* or *обижен*, so translators used words referring to anger of the King:

(7.37) *Es ist ja ’n Witz! fügte der König in ärgerlichem Tone hinzu; sogleich lachte Jedermann.*

(7.38) - *Это каламбур! - закричал сердито Король. И все засмеялись.*

Expressions referring to a verbal manifestation of anger

English: -

German: *schimpfen*, *streiten*

Russian: *ругань**, *ругать*(ся), *скандалить**, *ссора**, *ссориться*

In English and German there are also many options for referring to verbal manifestations of one’s anger, for instance, *curse*, *quarrel*, *scold*, *swear* or *brüllen*, *fluchen*, *grollen*, *sich zanken*, however, they are rarely used in the written speech according to the BNC and COSMAS. There are also relatively frequent lexical options which are homonymous with other uses, for instance,

argue (disagree in an angry way), *row* (an angry argument) or *Krach haben* (to have a quarrel), though the relative frequency of their anger-related uses is not known. In contrast to this, direct lexical references to verbal expressions of anger are routine in Russian. Also, Russian translations often render generic verbs, like *say* or *call*, used in English source texts by means of anger-related ones:

(7.39) *‘I wish I hadn’t cried so much!’ said Alice*

(7.40) *Зачем ты только столько редела, дурочка! — ругала себя Алиса.*
lit. ‘cursed herself Alice’

(7.41) *Lo was enraged by all this—called me a lousy crook and worse*

(7.42) *Лолита приходила в ярость, ругала меня паршивым жуликом и еще худшими словами*

7.5.2 A case study of anger references in a story

The classification helps in making a detailed analysis of references to anger states in texts and their translations. For instance, we can consider the anger-related behavior of the Queen from “Alice in Wonderland” and its translations. The Queen is explicitly presented as a character prone to bursts of anger (the short story contains 19 references to Queen’s anger). Most frequently, anger outbursts of the Queen are expressed 1) by references to the way she says things, 2) by references to qualities of her actions or inner states, and 3) by observable symptoms indicating her inner states. There is no instance of “submissive” anger.

References to verbal expressions of anger are the most frequent: there are 13 instances (this is explainable, because the story largely consists of dialogs), e.g.

(7.43) *when the Queen jumped up and bawled out . . .*

(7.44) *“Leave off that!” screamed the Queen.*

(7.45) *as she heard the Queen’s voice in the distance, screaming with passion*

There are 4 references to qualities of actions or inner states, typically by means of adjuncts, while the Queen is the grammatical subject of actions, e.g.

(7.46) ... *said the Queen, tossing her head impatiently*

(7.47) *in a very short time the Queen was in a furious passion*

The majority of expressions of Queen's anger (both verbal and non-verbal) are not directed from the viewpoint of the immediate lexicogrammatical environment. Since the directedness of anger specifies its cause, Queen's anger is presented as unfounded.

There also two references to observable bodily symptoms:

(7.48) *The Queen turned crimson with fury*

(7.49) *"Hold your tongue!" said the Queen, turning purple.*

Such references were not studied among the most frequent expressions of anger above, however, according to the BNC colour words are frequently used to refer to the expression of one's emotions, especially *turn/go crimson; be crimson with anger/emarrassment/laughter/rage*, but also *turn pale, whiten*. The same applies to Russian and German: *нобазпроветъ* (reddden) is used in the Russian translations and *purpurrot werden* (become crimson) in German.

Translations follow the original in their references to Queen's behavior, though the lexical choice varies in different Russian translations. The most volatile property of translations is the intensity of emotions, e.g. in translations of (7.21–7.27) an angry state can be presented on the range from *wrath* to *irritation* depending on the context and rhetorical goals of the translator. What is more important is that translators keep stylistic properties, i.e. they choose expressions according to the classification of formal, informal or literary options. This is yet another confirmation that words are closer related to communicative/rhetorical intentions than to "objective" properties of emotional states:

(7.50) *as she heard the Queen " s voice in the distance , screaming with passion*

(7.51) Алиса услыхала , как Королева что - то громко кричит вдалеке

(7.52) Издали доносился голос Королевы , которая орала в яростном исступлении .

(7.53) До нее еще издали донесся голос , вернее , вопль разъяренной Королевы .

- (7.54) da sie in der Entfernung die Stimme der Königin hörte , die vor Wuth außer sich war.

As for multilingual differences, there are differences between translation equivalents: *злой*, as the most frequent Russian translation equivalent for *angry*, also is used in the sense *evil*. *Обижаться* corresponds to ‘be offended’, but it can be often considered as the state of anger of moderate intensity, because it is frequently used in this function and can be translated as *irritation*, and vice versa, *angrily* is often translated as *обиженно* in the story:

- (7.55) ‘*Then it wasn’t very civil of you to offer it,*’ said Alice *angrily*.

- (7.56) *Зачем же предлагать? Это не очень-то вежливо! — обиженно сказала Алиса.*

Another feature of German and Russian basic lexicons is relative frequency of words referring to scolding. *Offence* and its derivatives are not as frequent in the English lexicon in comparison to its German and Russian counterparts, however, it is frequently used by Lewis Carroll:

- (7.57) in a whisper , half afraid that it would be **offended** again .

- (7.58) Последнюю фразу она произнесла шепотом , боясь , как бы не **обидеть** Мышь снова.

- (7.59) fügte sie leise hinzu , um nur das niedliche Thierchen nicht wieder **böse** zu machen .

- (7.60) over , and she felt certain it must be really **offended** .

- (7.61) Шерстка у Мыши стала дыбом . Алиса поняла , что **оскорбила** ее до глубины души.

- (7.62) denn diesmal sträubte sich das ganze Fell der armen Maus , und Alice dachte, sie müsste sicherlich sehr **beleidigt** sein.

- (7.63) ‘ But you ‘ re so easily **offended** , you know !

- (7.64) Просто вы все время **обижаетесь** .

- (7.65) “Aber du bist so sehr **empfindlich** , du ! ”

- (7.66) I wish the creatures wouldn’t be so easily **offended** !

(7.67) А про себя подумала : “ До чего они тут все **обидчивые** ! ”

(7.68) Bei sich dachte sie : “ Ich wünschte , alle diese Geschöpfe **nähmen** nicht Alles gleich **übel** . ”

(7.69) tone , ‘ I ’ m afraid I ’ ve **offended** it again !

(7.70) – грустно промолвила Алиса . – По-моему , я ее опять **обидела** !

(7.71) sagte Alice in reumütigem Tone . “ Ich fürchte , ich habe ihr wieder **weh gethan** ! ”

(7.72) had nothing yet , ‘ Alice replied in an **offended** tone , ‘ so I can ‘ t

(7.73) – Еще ? – переспросила Алиса с **обидой** . – Я пока ничего не пила .

(7.74) ich habe noch keinen gehabt , ‘ antwortete Alice etwas **empfindlich** , ‘ also kann ich nicht noch mehr trinken . ’

7.6 Conclusions

The research reported in the paper has two goals. The first one is to define the core lexicon of words that are frequently used to refer to emotions in English, German and Russian. The goal has been achieved by compiling lists of words that can provide a good indication of emotion-related expressions and by filtering the lists of emotion words against respective frequency lists to select most important (i.e. most frequent) words. The second goal of the research is a network of features that can provide a sensible explanation of any emotion-related use of any word from the core lexicon (and, if possible, beyond it). The network also provides the basis for comparing uses across languages. Expressions with similar intentions receive similar sets of features in the network. The resulted lists of the most frequent words that denote emotions in the three languages under study are stored in a multilingual database. The database can be used for various purposes, for instance, for selecting specific words in psycholinguistic studies, for studying translation equivalence in uses of emotion words, for second language education, etc, because it allows to select groups of emotion words and to study contexts of their uses.

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