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NAMES OF FEELINGS IN THE DICTIONARY

Lidija Iordanskaja and Igor Mel'čuk

Observatoire de linguistique Sens-Texte, Université de Montréal, Montréal
{lidija.iordanskaja, igor.melcuk}@umontreal.ca

Abstract

The paper deals with words that denote feelings rather than with feelings as such. It proposes the strictly lexicographic description of some names of 'psyche-induced feelings**1**' [= 'feelings**2**'], such as JOY or AMAZEMENT, in contrast to the names of 'body-induced feelings**1**' [= 'sensations'], such as HUNGER and TIREDNESS. This description is based on the semantic prime 'feel**1**', which itself is explicated through a naïve model of the human psyche. Our theoretical and descriptive framework is the *Explanatory Combinatorial Dictionary*: its main principles, the notions of lexical unit (described by a lexical entry) and vocable (described by a lexical superentry), and the three major zones of a lexical entry. A tripartite general schema of the lexicographic definition of a feeling**2** name is proposed: the central (= generic) component, the Stimulus component, and the Effect component. According to the Stimulus component, four major classes of feeling**2** names are distinguished: names of reactions to facts, to thoughts, to beliefs, and to wishes. These classes are illustrated with the definitions of several English feeling**2** names. A complete lexical entry for the feeling**2** name ANGER(N)**1** is given.

Keywords: feeling names; lexical entries; lexicographic definition; collocation; lexicography; phraseology; semantics; syntax

1. Introduction

Before proceeding to the main body of the paper, we have to do some explaining with respect to the three following points: the title of the paper, its theoretical and descriptive framework, and its structure.

The paper deals with the names of human psychological states commonly called "emotions": philosophers, psychologists, ethnographers, cognitivists, etc., writers and poets as well as general public—everybody speaks of "emotions" in the sense intended here. However, we cannot simply use the title "Names of emotions …," because many of the words that are lexicographically defined below cannot be defined by means of the semantic component 'emotion': it is, as shown in Subsection *2.1*, by far too specific. The words under analysis have to be defined by the semanteme 'feeling**2**' = 'psyche-induced

feeling**1**' ('feeling**1**' = 'feel**1**' being a semantic primitive), but the expression "feeling**2**" seems unfit to appear in a title, so that we have allowed ourselves to use the word FEELINGS.[1]

Our theoretical and descriptive framework is the *Explanatory Combinatorial Dictionary* [ECD]; we will present its main principles, the notions of lexical unit (described by a lexical entry) and vocable (described by a lexical superentry), and three major zones of a lexical entry: the semantic zone (the lexicographic definition of the headword L and its connotations), the syntactic cooccurrence zone (the government pattern of L), and the lexical zone (restricted lexical cooccurrence of L, described in terms of lexical functions). A systematic presentation of the ECD would require too much space, and we decided to make do with local explanations (marked ☞) and illustrative examples (plus, of course, references).

We start with making more precise the two key terms in the title: *names of feelings* (Section *2*) and the *dictionary* (Section *3*); then we present a general schema for the lexicographic definitions of feeling**2** names, illustrate it with several definitions based on English data (Section *4*), and offer a complete lexical entry for the noun ANGER₍N₎**1** (Section *5*); finally, we offer several considerations concerning the linguistic exploration of feeling**2** names (Sections *6–8*).

Given the logical complexity of the exposition, we find it useful to provide a *sui generis* table of contents, which will help the reader to navigate in the stormy ocean of the feeling**2** names.

Because of the astronomic number of existing publications on the topic, we have to content ourselves with the most relevant references only. We take the liberty to indicate that the present paper continues our own long-time work on feeling**2** names (Iordanskaja 1970 and 1973; Iordanskaja and Mel'čuk 1990); it also essentially uses some ideas and results from Wierzbicka 1999, as well from Apresjan, V. 1995 and 2011.

2. Names of feelings

> *Gefühl ist alles ... Name ist Schall und Rauch ...*
> 'Feeling is all; its name is just sound and smoke ...'
> W. Goethe, "Faust".

Everybody will agree with the great Goethe: what is highly important for people are real feelings, not so much their names. Linguists, however, unlike normal people, are interested exactly in the names of feelings—rather than feelings themselves. It is this viewpoint that is adopted in the following discussion.

2.1. Feelings vs. names of feelings

The first thing first: What will we be talking about?

> This paper does not discuss or characterize feelings**2** as such; we deal exclusively with **words**—or, more precisely, with **lexical units**—that denote feelings**2**, that is, with feeling**2** names.

> NB A lexical unit [LU] is a lexeme (a word taken in one sense) or an idiom, that is, a non-compositional multilexemic phrase (also taken in one sense).

The objects of linguistic studies cannot be feelings**2** themselves—"biological states [of a human being] associated with the nervous system [and] brought on by neurophysiological changes variously associated with thoughts, feelings, behavioral responses, and a degree of pleasure or displeasure," as Wikipedia defines them (https://en.wikipedia.org/wiki/Emotion; accessed on January 3, 2021). A linguist is supposed to describe only LUs denoting feelings**2**; in particular, s/he must model the **linguistic** meaning of these LUs and their **linguistic** combinatorics. An analogy will be helpful here. For instance, water, according to an encyclopedia, is "a transparent, nearly colorless and tasteless inorganic liquid whose formula is H_2O, which is the main constituent of Earth's streams, lakes, and oceans, and the fluids of most living organisms, which boils at 100° C and freezes at 0° C." But the meaning of the English noun WATER denoting the same substance (H_2O) is different, even if similar:

'water' = 'colorless, odorless and tasteless liquid necessary for living beings to introduce in their body'.

> ☛ The simple quotes ' ...' stand for "the meaning of ..."; thus, 'water' is the meaning of the lexeme WATER.

Many studies claiming to deal with the linguistic meaning of the feeling**2** names deal in fact with feelings**2** themselves or with the corresponding concepts rather than with LUs denoting them. Thus, Kövecses 1986, intended as an investigation into lexical structures of English, speaks about "five successive stages in characterizing the temporal dimension of anger" (p. 140), which is, obviously, not about the noun ANGER, but rather about the feeling**2** called "anger." Lakoff and Kövecses 1987 discusses, again, a cognitive model of anger—not the noun ANGER; though their model is supposed to be discovered based on English expressions, its main thrust is aimed at the feeling**2** as such.

The linguistic meaning of a lexical unit L of a given language is an exact paraphrase of L in the same language satisfying the following three substantive requirements:

1. This paraphrase is distinctive: it distinguishes any two LUs L_1 and L_2 that are not completely synonymous.
2. This paraphrase is identifying: it underlies a full specification of L's linguistic behavior.
3. This paraphrase is minimal: it does not contain elements that are not necessary either for distinguishing L from other LUs or for identifying L.

The meaning of an LU is strictly "national"—that is, although, for instance, Eng. ANGER, Fr. COLÈRE, Ger. ÄRGER, Rus. GNEV and Sp. IRA are, in an appropriate context, legitimate translational equivalents, their meanings are not identical: 'anger' ≠ 'colère' ≠ 'Ärger' ≠ 'gnev' ≠ 'ira'. And what are being discussed below are English feeling**2** names. This, however, does not prevent us from proposing for them a general schema of lexicographic description, which is conceived of as universal, applicable to the description of feeling**2** names in any language.

And now the second thing: our basic descriptive term to represent the meanings of feeling**2** names.

> As the basic term for the description of the meaning of what is commonly known as "emotion names" we will be using the noun FEELING**2** (see Section *1*) and the corresponding semanteme 'feeling**2**'—rather than the noun EMOTION.

The English noun EMOTION is semantically quite complex: we can define is as ≈ 'typically strong feeling**2** usually directed toward a specific object and typically accompanied by physiological and behavioral changes in the body ...'; it cannot be used to describe what we want to describe, because it is too specific. Traditionally, the rubric of "emotion words" includes many LUs that cannot be defined as a particular case of emotion: CONTEMPT, GRATITUDE, HOPE, LONELINESS, RESPECT, ... Since this paper is supposed to cover such LUs as well, we have to reject the noun EMOTION and the semantic element 'emotion' as an underlying descriptive term. (See Wierzbicka 1999: 1–7 for a convincing discussion of why 'emotion' cannot be adopted for this role. Similarly, Polguère 2013 comes to the same conclusion while analyzing the French lexeme ÉMOTION.)

2.2. The semantic prime 'feel1'

The underlying **semanteme** used in this paper for defining the names of feelings is 'feel**1**'/ 'feeling**1**'. (A semanteme is the meaning of an LU.) In conformity with the most recent research on semantic primes, the semanteme 'feel**1**', as in *I feel good/bad/hungry/guilty/sad/ ...* is linguistically indecomposable; it is included in the list of semantic primes in Goddard and Wierzbicka 2014: 12. By saying that the semanteme 'feel**1**' is linguistically indecomposable, we mean that it is impossible to represent it in terms of simpler semantemes of English. For an in-depth discussion of the semanteme 'feel**1**' and its correspondences in a variety of languages, see Goddard and Wierzbicka (eds) 1994.

> **NB 1.** Semanteme 'σ_1' is **simpler** than semanteme 'σ_2' if and only if 'σ_2' can be defined in terms of 'σ_1', but not vice versa.
> **2.** There is no need to justify here the indecomposability of the meaning 'feel**1**'. For the purpose of the present exposition, it is sufficient that 'feel**1**' is simpler than the meanings of all LUs denoting feelings**2** that are described.

2.3. A language-based model of the human psyche: the feeling system

This paper deals exclusively with human feelings (although some feelings are of course characteristic of animals as well). Therefore, an approximate schema of the human psyche is needed. It can be imagined as consisting of several components, or systems, of which three major systems will be considered here (following Plato, who said that more than 2300 years ago!). The three systems are: **mind** system ('I think'/'I believe'), **wish** system ('I want'), and **feeling** system ('I feel**1**').

> **NB** A complete language-based model of the human psyche—with all its eight systems, including a detailed presentation of the feeling system,—is found in Apresjan, Ju. 1995.

It is the feeling system of the human psyche that concerns us here. Remember, we speak not of the real feeling system, as it is physiologically implemented in a real human being, but of a linguistic model of it, developed strictly on the basis of what is said in the corresponding language.

The feeling system of a human can be either quiet—in a "dormant," or non-functional, state, or "awake"—in a working, or functional, state, when a particular element of this system is "aroused." A particular working state of the feeling system is always a response to a stimulus coming either from the body, or from one of the other psyche's systems: from the mind (thoughts or permanent beliefs) or from the wish system. The English noun FEELING**1** will be used to denote any particular working (= aroused) state of the feeling system; its meaning corresponds to the semantic prime 'feel**1**'. If the aroused state is triggered by a stimulus coming from the body, this state will be called SENSATION; if the stimulus is coming from the psyche—that is, from the mind or from the wish system, we will speak of FEELING**2**. Thus, two major types of feeling system states are distinguished:

'sensation' ≈ 'body-induced feeling**1**'

'feeling₂' ≈ 'psyche-induced feeling**1**' (that is, a thought-induced or wish-induced feeling**1**)

> **NB** Many problems for the lexicographic description of feelings**2** are due to the polysemy of the English noun FEELING. We say *feeling of hunger/of tiredness/ of cold* and *feeling of joy/of respect/of anger/of love*, and these two *feeling* are different lexemes of the vocable FEELING: FEELING**1** and FEELING**2**. In what follows, only the word sense (= semanteme) 'feeling**2**' is considered.

The human feeling system as presented in our model has two important properties.

- If the arousal of the feeling system reaches a sufficient degree, it tends to cause certain bodily manifestations (specific for particular sensations or feelings**2**). This property is relevant for the lexicographic description of corresponding lexemes.
- The feeling system can be "tuned": it can be neutral, that is, featuring the normal, standard settings, or be predisposed (by our psyche or body) to favor particular feelings**2** or sensations: for example, I can *feel sad/joyful/desperate/angry*, etc. without any external stimulus, thus experiencing *gratuitous sadness/joy/despair/anger*. That is what English calls *moods*. Utterances about gratuitous feelings**2** seem to contradict the lexicographic definitions we propose, while in fact they do not: we describe feelings**2** under a normal, or neutral, setting of the feeling system.

3. The dictionary: *Explanatory Combinatorial Dictionary* [ECD]

The lexicographic framework chosen here for the description of feeling2 names is the *Explanatory Combinatorial Dictionary* [ECD] (see, for instance, Mel'čuk 2013: Chapter 11, and Mel'čuk 2016: 151–169, as well as several papers previously published in IJL: Mackenzie and Mel'čuk 1988; Mel'čuk 1988; Ilson and Mel'čuk 1989; Dostie, Mel'čuk and Polguère 1992).

3.1. Main properties of the ECD

An Explanatory Combinatorial Dictionary has eight main properties.

1. An ECD is theory-oriented, in two senses:
   - An ECD is compiled within a specific linguistic theory, namely the Meaning-Text theory, which presupposes a Meaning-Text model of the language under discussion (Mel'čuk 2012, 2013 and 2015). This model features four autonomous linguistic modules—semantic, syntactic, morphological, and phonological—and puts strong emphasis on the lexicon; an ECD constitutes an integral part of the semantic module of a Meaning-Text model.
   - An ECD is a theoretical lexicon rather than a practical conventional dictionary. Developed within an explicit theoretical framework, an ECD purports to store all lexical knowledge shared by speakers in the form foreseen by this framework.

2. An ECD is a formalized dictionary; it is conceived as a lexical database, submitted to strict requirements of explicitness and consistency, which follow from the ECD's theoretical orientation.

3. An ECD is locally exhaustivE—that is, each LU L it describes must be described exhaustively. Whatever a native speaker knows about L must be fully presented in L's ECD entry.

4. An ECD is an active dictionary: the data presented is organized in the direction from meaning to text—that is, in such a way as to enable the user to pass from a given meaning to the corresponding texts.

5. An ECD is semantically based: the lexicographic definition of an LU L forms the basis of the whole entry for L. This means that the syntactic and lexical cooccurrence of L must be in a complete agreement with L's definition.

6. An ECD is lexically homogeneous in the sense that single words (lexemes) and non-compositional multilexemic phrases (idioms) are all stored as separate entries and are treated in the same way.

7. An ECD has only monosemous entries: the headword of a lexical entry in the ECD is a monosemous (= fully disambiguated) LU. Lexical entries of the LUs related by polysemy are grouped into a superentry, called vocable, see below, Subsection *3.3*.

8. An ECD is explanatory (providing a precise semantic description of L) and combinatorial (providing an exhaustive description of the restricted syntactic and lexical cooccurrence of L).

3.2. An ECD lexical entry

An ECD is a structured collection of lexical entries, which describe lexical units [LUs]. The LUs are of two types: lexemes (single words each taken in one well-defined sense) and

idioms (non-compositional multilexemic phrases also taken in one well-defined sense). An LU is described by one lexical entry, and a lexical entry describes one LU. This description is organized in three major zones: semantic, syntactic, and lexical ones.

3.2.1. Semantic zone of an ECD lexical entry

The obligatory part of the semantic zone is the lexicographic definition of the headword L; it conditions the whole lexical entry (see Mel'čuk and Polguère 2016 and 2018). The other part, appearing only with some LUs, is the set of L's lexical connotations (Iordanskaja and Mel'čuk 2009), which are not characteristic of feeling2 lexemes and are not considered in this paper. In addition, some classes of LUs, in our case, feeling2 lexemes, require an additional type of information: an indication of some relevant properties of the denotation of the headword L. For feeling2 lexemes it is an indication that a high enough arousal of the feeling system entails specific bodily manifestations (such as a big smile with joy and wide-open eyes with amazement); this indication is associated with the semanteme 'feel1' and through it is available in the descriptions of all feeling2 lexemes.

The lexicographic definition of an LU L is a minimal exact paraphrase of L, which satisfies the following four conditions, or principles.

1. Decomposition Principle: L's definition must be a semantic decomposition of L—that is, it must be formulated in terms of LUs semantically simpler than L.

2. Univocity Principle: L's definition must consist only of elements that exclude ambiguity and synonymy. (Obviously, this principle concerns the semantic metalanguage in which definitions are written rather than individual definitions.)

3. Adequacy Principle: All elements in L's definition must be necessary and their set must be sufficient to uniquely characterize L. This means two things:

   - L and L's definition are mutually substitutable in any context *salva significatione* (= 'without modifying the information transmitted').
   - L's definition underlies the description of L's syntactic and lexical cooccurrence and L's relations with other LUs in the lexicon.

To put it differently, the lexicographic definition of L includes all and only the semantic elements that characterize the linguistic behavior of L rather than properties of L's referent.

4. Maximal Block Principle: Any configuration of elements in L's definition that corresponds to an LU L′ must be replaced with L′; in other words, this principle requires, on each subsequent step of decomposition, the minimal decomposition of the meaning. Thus, ASSASSINATE should not be defined as 'X criminally kills Y deliberately for political reasons', since the configuration 'criminally kills Y deliberately' corresponds to MURDER(V). The formally correct definition of ASSASSINATE is as follows:

'X assassinates Y' = 'X murders[1]I Y for political2 reasons[1]1'.

   - ☛ The digits accompanying semantemes are lexicographic numbers, which ensure a unique identification of semantemes corresponding to polysemous words; see Subsection *3.3*.

This definition satisfies all four above principles:

Decomposition	The semantemes 'murder[1]I', 'political2' and 'reason[1]1' do not include the semanteme 'assassinate'—that is, they are simpler that 'assassinate'.
Univocity	The lexicographic numbers ensure the disambiguation of lexical items used.
Adequacy	• The mutual substitutability can be illustrated by the following synonymous paraphrases: *Gandhi was assassinated on 30 January 1948 by Nathuram Godse.* ∼ *Gandhi was murdered for political reasons on 30 January 1948 by Nathuram Godse.* 　　　• The lexical cooccurrence of the verb Assassinate is conditioned by that of the verb Murder$_{(V)}$ (cf. *ruthlessly murdered* ∼ *ruthlessly assassinated*, etc.).
Maximal Block	This principle is respected, since English has no lexeme for the meaning 'political reason'.

3.2.2. Syntactic zone of an ECD lexical entry

Restricted syntactic combinability concerns mainly the actants of the headword L—that is, the LUs that represent the obligatory participants of the situation denoted by L and that L controls semantically and syntactically in a sentence. L's actantial frame is described by a government pattern, which specifies the correspondence between L's semantic, deep- and surface-syntactic actants as well as the surface expressions of the latter. (For actants and government pattern, see Mel'čuk 2015: 4–154.) For instance:

Revulsion**II** ≈ 'intense dislike …', noun (*X's revulsion against Y*)

☛ The variables 'X' and 'Y' represent the semantic actant slots, **I** and **II** are deep-syntactic actants; C stands for "column," so that C$_{II.2}$ means "column II, line 2"; ⟺ means "corresponds to." (For simplicity's sake, we omit the indication of surface-syntactic actants.)

Government Pattern

'X' ⟺ **I**	'Y' ⟺ **II**	
1. N's	1. *against*	N
2. *of* N	2. *at*	N
3. A$_0$(N)	3. *for*	N
	4. *from*	N
	5. *of*	N
	6. *toward*	N

☛ Here and below, "N*'s*" in a government pattern stands for 'the possessive form of N,' e.g., *John's* or *my, your, his, …*; A$_0$(N) means 'a relational adjective semantically derived from N' (*paternal* from *father*, *national* from *nation*, etc.), A$_0$ being one of the lexical functions.

1) C$_{II.2}$: 'N' is something that takes place and is experienced now

2) $C_{II.6}$: 'N' ⊃ '<u>person</u>' [N denotes people]

the national revulsion against handgun violence; *She was unable to hide her revulsion at what she had just read.* | *John's revulsion for his past*; *his revulsion from the sternness of his upbringing*; *that revulsion of your past self*; *Mary's revulsion toward the captain*

Impossible: **John's revulsion at his past* (1); **He did it from deep revulsion toward the bitterness of the sectarian strife* (2).

The number of columns in the government pattern of an LU L, which corresponds to the number of L's semantic and syntactic actants, depends, of course, on the definition of L. Thus, the noun REVULSIONII has two semantic actants in conformity with its meaning:

'X's revulsion against Y' ≈ 'X's very strong dislike for Y'.

3.2.3. Lexical zone of an ECD lexical entry

Restricted lexical combinability concerns the semantic derivatives and collocates of the headword L. Both semantic derivatives and collocates are described in terms of lexical functions [LFs]: a few dozen functions, each of which is associated with a general enough meaning 'σ' that is expressed phraseologically depending on L (Mel'čuk 2015: Ch. 14, Mel'čuk and Polguère 2021). An LF is applied to a lexical unit L—its keyword—and returns a value, which is a set of (quasi-)synonymous LUs $\{L'_i\}$ that express 'σ' as function of L:

$$f_{'\sigma'}(L) = \{L'_i\}.$$

A semantic derivative L'_{der} of L is an LU whose meaning includes L's meaning such that the semantic difference 'σ' = 'L'_{der}' – 'L' is regular in the language, that is, 'σ' appears in many lexical pairs and at least in some cases is expressed by a morphological means; L'_{der} stands in a paradigmatic relation to L and is normally used in the text instead of L rather than together with L. Two stock examples:

'σ_1' = 'who/which does L', or an Agent noun (the LF S_1): *skier* for SKI$_{(V)}$, *thief* for STEAL, *cook*$_{(N)}$ for COOK$_{(V)}$, ⌜*top gun*⌝ for (*be the*) BEST, *escapee* for ESCAPE$_{(V)}$, etc.

☛   The raised semi-brackets ⌜...⌝ enclose an idiom.

'σ_2' = 'such that it is L-ed', or a "passive" deep adjective (the LF A_2): *regrettable* for REGRET$_{(V)}$, *endangered* for DANGER, *caught in crossfire* for CROSSFIRE, *in production* for PRODUCTION, *at risk* for RISK, *under pressure* for PRESSURE, etc.

A collocate L'_{coll} of L stands in a syntagmatic relation to L and is normally used in the text together with L in order to express a particular meaning 'σ' as a function of L. Thus:

'σ_3' = 'intense(ly)' (the LF Magn): *heavy* for LOSSES, *high* for TEMPERATURE, *yawning* for ABYSS, ⌜*as a dead snail*⌝ for SLOW, *badly* for WANT, etc.

'σ_4' = 'do' (the LF Oper$_1$), or a "light verb," which verbalizes a predicative noun: *take* for CASUALTIES, *make* for MISTAKE, *do* for FAVOR, *impose* for RESTRICTION, *play* for ROLE, ⌜*hand in*⌝ for RESIGNATION, etc.

3.3 An ECD lexical superentry: vocable

In an ECD, the lexical entries of all LUs having identical signifiers are united in one superentry—if and only if their signifieds can be related by a chain of common components, called semantic bridges. A semantic bridge shared by two LUs must be important enough;

therefore, very abstract semantemes, such as 'object', 'intense', or 'relate', do not count as semantic bridges.

A lexical superentry is called a **vocable**; it corresponds to a "polysemous word" in current dictionaries. The LUs belonging to one vocable are distinguished by **lexicographic numbers**, which reflect the semantic distance between them:

- Roman numerals express the biggest semantic distance between two LUs (e.g., a metaphor);
- Arabic numerals correspond to a moderate distance (a metonymy, sense inclusion, etc.);
- small letters indicate the closest distance (regular semantic relations).

Two LUs having identical signifiers, but lacking semantic bridges (that is, being semantically unrelated, or **homophonous**), are relegated to different vocables, which are distinguished by numerical superscripts.

Thus, the vocable HUNGER contains the four following lexemes (semantic bridges between them are shown by shading):

HUNGER**I.1a**   'feeling**1** of the need to eat' (*quell his hunger*)

HUNGER**I.1b**   'impossibility to satisfy the need to eat, caused**1** by lack of food' (*die from hunger*)

HUNGER**I.2**   'social disaster that is lack of food for an important part of the population of a region' (*combat the hunger in Africa*)

HUNGER**II**   'strong desire of Y—⌜as if⌝ it were hunger**I.1a**' (*his hunger for success*)

In contrast to HUNGER, four nominal lexemes SPRING$_{(N)}$ belong to four different vocables, since their meanings feature no semantic bridges; these lexemes are homophonous:

SPRING$_{(N)}$[1] 'the season between winter and summer'

SPRING$_{(N)}$[2] 'a device that, after being compressed, returns to its normal shape'

SPRING$_{(N)}$[3] 'opening in the ground from which water naturally is coming up'

SPRING$_{(N)}$[4] 'sudden jump'

> NB We quote here only one lexeme for each of the four vocables, but in fact, these vocables are polysemous: they contain other lexemes (= word senses) as well.

4. Lexicographic description of feeling2 names

4.1. The meaning of a feeling 2 name: the lexicographic definition

From now on, we will be talking about English feeling**2** names. More precisely, only feeling**2 nouns** will be considered.

Our main semantic reason to stick to feeling**2 nouns** is that a feeling**2** name denotes a particular **state** of the feeling system (see *2.3*), and the semanteme 'state' cannot be expressed by a verb, so that a noun is the simplest and most basic feeling**2** name. The corresponding feeling**2** verbs and adjectives, quite numerous and widely used in many languages, are semantically derived from feeling**2** nouns. Thus, in many cases English clearly prefers to denote feelings**2** with BE→ADJ phrases, such as *be afraid/angry/sad/* …; however, these feeling**2** adjectives are themselves defined by corresponding nouns:

'afraid'= 'feeling fear'

'angry' = 'feeling anger'
'sad'   = 'feeling sadness'

A feeling2 verb corresponding to the feeling2 noun L represents, so to speak, an actualization of the meaning 'L': it means 'to experience feeling2 L'. Such verbs are current in Russian: BOJAT'SJA 'be afraid', GNEVAT'SJA 'be very angry', GRUSTIT' 'be sad', etc. But again, the semantic decomposition of such a verb brings us to the underlying noun (BOJAT'SJA is 'feel1 STRAX‹fear_(N)›', GNEVAT'SJA is 'feel1 GNEV‹intense anger›', and GRUSTIT' is 'feel1 GRUST'‹sadness›').

The maximal schema of a feeling2 name definition can be thought of as consisting of three major components: the central component, the peripheral Stimulus component, and the peripheral Effect component.

■ The central, or generic, component is the main part of a lexicographic definition; it corresponds to *genus proximum* in the Aristotelian definition. It is opposed to peripheral, or specific, components, which correspond to *differentia specifica*.

The central component in the definition of a feeling2 name can be of one of the four types, according to two dimensions:

- The causation1 of the feeling2 is characterized as immediate or is not characterized.
- ☛ The semanteme 'cause1' corresponds to the non-agentive, involuntary causation—'X is the cause of Y'; it is opposed to 'cause2'—the agentive and voluntary causation, where 'X is the causer of Y' (Mel'čuk 2012: Ch. 5).
- The feeling2 is characterized as directed or is not characterized. In other words, feelings2 are either "two-actant," or "object-less," such as JOY1 and AMAZEMENT, which are not directed at a particular entity, or "three-actant," or "object-directed," such as ANGER1 and RESPECT1, which have an "object." [2]

Note that:

—The semanteme 'directed at Y' is, so to speak, an abbreviation for 'causing1 X's predisposition to a particular behavior toward Y'. A directed feeling2 of the type RESPECT1 includes a corresponding attitude toward Y (see Anscombre 1996).

—An important component of a feeling2 name meaning is 'X is aware of Y/Z(Y)'. However, this component is part of the definition of the lexeme FEELING2 (absent from the present paper), which allows us not to repeat it explicitly in the definitions of feeling2 names given below.

—The feeling2 denoted by a specific feeling2 name is supposed to be such as is normally caused1 by the respective Stimulus—that is, in a standard situation with standard participants. In other words, "X experiences the feeling2 such as is usually caused1 in an average person through the evaluation he makes of fact Y" (Iordanskaja 1973: 392; the quote is slightly adapted to modern notation). The corresponding semantic component is also part of the definition of the lexeme FEELING2; therefore, it is not repeated in our definitions.

The semanteme 'feeling2' in a feeling2 name definition can be characterized along the following three parameters, given below together with their values:

1. Intensity: 'intense' ∼ 'moderate' ∼ — ['feeling2'], where 'intense' and 'moderate' characterize the higher and lower degree of arousal of the feeling2 system: 'ecstasy' and 'hate' are 'intense feelings2'; 'misgivings' and 'sympathy' are 'moderate feelings2'; while 'joy' and 'surprise' are neither—they are intensity-neutral, since they can be either (*mild surprise* vs. *overwhelming surprise*).

2. Polarity: 'pleasant' $\sim$ 'unpleasant' $\sim$ — ['feeling2'], where 'pleasant feeling2' = 'feel something good' ('joy1', 'hope'), and 'unpleasant feeling2' = 'feel something bad' ('fearI', 'anger1'); such feelings2 as 'amazement' or 'respectI' are polarity-neutral.

3. Attitude: 'favorable' $\sim$ 'unfavorable' ['feeling2'], relevant for directed feelings2 only: 'favorable feeling2 directed at Y' = 'feeling2 causing1 X's predisposition to favorable behavior toward Y' ('respectI', 'loveI.2') and 'unfavorable feeling2 directed at Y' = 'feeling2 causing1 X's predisposition to unfavorable behavior toward Y' ('contempt', 'envy').

The semantemes 'intense'/'moderate', 'pleasant'/'unpleasant' and 'favorable'/'unfavorable' are part of the generic component in the definitions for narrower classes of feeling2 lexemes: for instance, 'intense feeling2' (DELIGHT, ECSTASY, HATE, PANIC, ...), 'pleasant intense feeling2' (DELIGHT, ECSTASY, ...), etc.

■ The Stimulus component contains the characterization of the fact Y (= the cause of feeling2), see below; this is the most informative part of the definition.

■ The Effect component offers the description of particular behavior types (loss of self-control, which entails fleeing in case of PANIC; hiding in case of SHAME; destructive acts in case of RAGEI, etc.). This component is optional, being typical only of some intense feelings2.

> **NB** The bodily manifestations of a feeling2 L, which also are, strictly speaking, its effects, are not explicitly mentioned in L's definition. The reason is that while behavioral effects characterize only some feelings2, bodily manifestations are typical of **all** feelings2 and are implicitly present in L's definition via the semanteme 'feel1' (Subsection *3.2.1*). They are formally described by the lexical function Sympt, see *4.3*, p. 22.

These major components—the central component (in our case, 'feeling2') and the two peripheral components, the Stimulus and the Effect,—are explicitly indicated in the proposed definitions of feeling2 names.

The Stimulus component calls for further explanations, since the stimuli that underlie the typology of feeling2 names are of four types. Namely, a feeling2 stimulus can be:

—The **fact** Y itself of which X has become aware: *the joy of this **meeting**, my anger at the official for his **negligence**, our amazement at **what happened**.* In this case, the causation1 of the feeling2 is necessarily synchronic—this feeling2 is an immediate reaction to the fact Y.

In principle, the causation1 of something by a fact is not necessarily synchronic with the fact: the effect can be separated from its cause by a considerable period of time (*Her behavior is due to her difficult childhood.*). However, if a feeling2 is caused1 immediately by the fact Y itself, Y must precede the feeling2 immediately; this particularity is reflected by the semanteme configuration 'immediately caused1 by ...' in the central component of the definitions of all feeling2 lexemes where the stimulus—that is, the cause—is the fact Y itself. In the definitions of all other feeling2 lexemes, where the stimulus is something internal to the experiencer X—X's thoughts, beliefs, wishes,—the semanteme 'immediately' in the central component is redundant, since causation1 of feelings2 by internal stimuli is automatically immediate (the corresponding information being given again in the lexical entry for FEELING2).

Feelings2 that are psychological reactions to a fact external with respect to the Experiencer are called exogene ($\approx$ 'produced by an external fact') in Anscombre 1995. This type of feeling2 is opposed to three other types of feeling2, called endogene ($\approx$ 'produced by an internal fact'), which are also psychological reactions, but to X's own thoughts, beliefs and wishes.

—X's **thoughts** about a fact or entity (*sadness for the past*/*for my dead brother*, *my fearII of flying*, *his heartfelt hope for peace*).

—X's **beliefs** concerning a person (*the respect of parents*, *his contempt for the rulers*, *my gratitude towards John*). By 'beliefs' we understand judgments stored more or less permanently in X's memory.

—X's **wanting** an entity (*my love of kids*, *my love of Chinese food*, *the sympathy for the neighbor*, *the hate for the murderer*, *an unconquerable aversion to this idea*, *the dislike for such people*). X's wanting Y means that X wants to be in contact with Y in an appropriate sense: you are in contact with kids in quite a different way than with Chinese food (except if you are a refined cannibal . . .). X's wanting can be negative: X wants not to be in contact with Y, which we see in HATE, AVERSION, etc.

Each stimulus description (independently of the stimulus' nature) includes an evaluation component: 'Y is desirable/undesirable for X' or 'X believes that Y is dangerous for X'. ('Y is desirable for X' = 'Y has such properties that cause1 that X wants Y'.)

According to the type of stimulus, feeling2 names can be grouped in four semantic subclasses:

1. Names of feelings2 that are immediate reactions to perceived **facts**: e.g., JOY1
2. Names of feelings2 that are reactions to **thoughts**: e.g., SADNESS
3. Names of feelings2 that are reactions to **beliefs**: e.g., RESPECTI
4. Names of feelings2 that are reactions to **wishes**: e.g., LOVE(N)I.2

This grouping calls for two general remarks.

"Aspectual" character of feelings2. Feelings2 of Subclass 1 are of short duration, or "punctual," which follows from these being immediate reactions to a fact. All other feelings2 are "durative," at least in principle. Therefore, the aspectual character of a particular feeling2 need not be indicated in its lexicographic definition: it follows from the type of the Stimulus. The corresponding information is stored in the lexical entry for FEELING2.

"Humanness" of feelings2. Feelings2 of Subclasses 2 and 3 are, so to speak, "rational"— they are caused1 by thoughts or beliefs; therefore, they are typical only of fully developed humans, excluding babies. Typically, a baby can be said *to be upset* or *feel joy1*, but not *feel sadness* or *respectI*. Feelings2 of Subclasses 1 and 4, which are reactions to facts or caused1 by wishes, are, of course, "available" to babies and higher animals. However, a feeling2 lexeme applied to a full-blown adult human and a homophonous lexeme applied to a baby or an animal need different lexicographic descriptions: they have different government patterns and different collocations; thus, the manifestations of people's ANGER and dogs' ANGER are not denoted by the same collocations. The lexicographic description of babies' and animals' feelings2 poses a serious problem, which will not be considered in this paper. As indicated above, all lexicographic entries supplied below as illustrations deal exclusively with adult human feelings2.

Here follow a few feeling2 name definitions, grouped according to the above semantic subclasses. As in the case of polysemy of the noun FEELING, mentioned in Subsection *2.3*, special attention is paid to polysemy of particular feeling2 names: different word senses are distinguished, where this is relevant, by means of lexicographic numbers, as specified in *3.3*.

NB 1. We do not claim the sufficiency of the definitions proposed: some of the lexemes might
       be underspecified.

2. Wierzbicka 1999 proposes semantic descriptions of several English feeling2 names, including those given below, in terms of Wierzbicka's Natural Semantic Metalanguage. We tried to construct our definitions in such a way that they be, as much as possible, in accordance with Wierzbicka's formulas.

3. Our illustrative examples come from a variety of discourse contexts on the Internet; they have been checked by a native speaker.

1. Names of feelings2 that are immediate reactions to facts: undirected or directed

Undirected feelings2

JOY$_{(N)}$**I.1**

X's joy about/of Y :	Central component	X's pleasant feeling2 immediately caused1 by fact Y or by the beginning of entity Y's presence,
	Peripheral components	
	Stimulus	and fact Y/entity Y's presence is desirable for X.

  i. *Kids are hopping with joy about snowy forecast.*
 ii. *I felt joy about the new guest.*
iii. *joy of victory*
 iv. *Children feel joy of new shoes in Uganda.*

Comments

1. JOY$_{(N)}$**I.2**: 'fact/entity Y causing1 X's joy**I.1**' (*She was our only joy.*); JOY$_{(N)}$**II**: ≈ 'pleasure' (*Judson knows the joy of painting.*).

2. The semanteme 'and' in the Stimulus component is accessible to negation of the whole statement (*X does not feel joy.*); therefore, the De Morgan rule concerning the negation of a conjunction ("negation of a conjunction is equivalent to a disjunction of two negations") is applicable here and gives the expected result. Namely, if X feels no joy of/at Y, this means that:

—A desirable Y does not cause1 joy in X, and this is not the standard situation foreseen in our definitions of feeling2 names (either X is not an average person—he is completely emotionless, or else he is in such a psychological state that his feeling system does not function). This interpretation is not considered in what follows.

—Or Y is not desirable for X (*I had no concern for John and felt no joy at his return.*).

NB The semanteme 'and' that introduces the Stimulus component behaves in this way in all the following definitions.

UPSETNESS$_{(N)}$

X's upsetness at Y :	Central component	X's unpleasant feeling2 immediately caused1 by fact Y^1 concerning entity Y^2,
	Peripheral components	
	Stimulus	and Y^1 is undesirable for X,
	Effect	this feeling2 causing1 that X's psyche is disturbed.

 i. *her upsetness at her$_{Y^2}$ failure$_{Y^1}$ to speak in this group*
ii. *John's upsetness about the state$_{Y^1}$ of his house$_{Y^2}$ ⟨about his house$_{Y^2}$⟩*

Comments

1. The noun UPSETNESS is not very current (although a Google search returns more than 50, 000 hits, on January 10, 2021): it jars with many speakers and arguably should not appear in a dictionary. However, it is needed here exactly as a noun since we want to describe the feeling2 names—that are nouns—in a standardized way in order to ensure a systematic comparison between them.

2. Y^1 and Y^2 in the definition represent a split variable Y (Mel'čuk 2013: 281). The technique of split variables allows us to cover by the same definition such different expressions as, for instance, *upsetness about the state*$_{Y^1}$ *of the house*$_{Y^2}$ ~ *upsetness about the house*$_{Y^2}$. In this case, Y^1 and Y^2 stand in the semantic relation 'Y^1 concerns Y^2', and their expressions cannot be co-subordinated in parallel to UPSETNESS; as a result, they need not be represented by two different variables.

FEAR$_{(N)}$I			
X's fear of Y	:	Central component	X's unpleasant feeling2 immediately caused1 by a fact Y or the entity Y's presence,
		Peripheral components	
		Stimulus	and X believes
			1) that Y is dangerous for X, and
			2) that X is incapable to oppose Y,
		Effect	this feeling2 causing1 that
			1) X wants to avoid Y and
			2) X enters in a psychological state in which X can easily lose self-control (and X likely loses self-control).

  i. *She remained motionless, paralyzed by the fear of the monster.*

 ii. *I felt a terrible fear when I saw the diagnosis.*

Comments

1. For other lexemes of the vocable FEAR$_{(N)}$, see below, Subclass 2 of feeling2 nouns.

2. The semantemes 'and' in the definition behave differently.

- 'Both 'and' in the Stimulus component are accessible to negation—as was stated above, so that the De Morgan rule is applicable here and gives the expected result: if X has no fear of Y, this is because X believes that Y is not dangerous for him/her **or** that s/he is capable to oppose Y.
- On the contrary, 'and' in the Effect component is inaccessible to negation: if X has no fearI of Y, there is nothing to cause1 X to want to avoid Y and to lose self-control; therefore, the De Morgan rule is not applicable here. This fact is reflected by giving the Effect component the syntactic form of a modifier to the central component. (Modifiers to an element of a statement are not accessible to negation of the whole statement.)

3. A semantic configuration in boldface parentheses (**...**) in the Effect component is a weak component 'σ' of the meaning 'L': the lexical unit L can be selected to express a semantic structure that does not contain 'σ'. In other words, in some uses of L the weak component 'σ' is suppressed: thus, the lexeme FEARI can be used to refer to a situation where X does not lose self-control. (For more on weak semantic components in lexicographic definitions, see Mel'čuk 2013: 303–304.)

SURPRISE$_{(N)}$

X's surprise at Y	:	**Central component**	X's feeling2 immediately caused1 by fact Y,
		Peripheral components	
		Stimulus	and X has believed before that Y is unlikely.

He gasped with surprise at her strength.

AMAZEMENT$_{(N)}$

X's amazement at Y:	**Central component**	X's intense surprise at Y,
	Peripheral components	
	Stimulus	and X has believed before that Y is extremely unlikely.

  i. *They did this from amazement at the unexpected result of the struggle.*

ii. *He was still regarding her with that air of slight amazement.*

Comment

In example (ii), the modifier SLIGHT does not contradict the characterization of AMAZEMENT as 'intense surprise': SLIGHT indicates a low degree of intensity. This is not an exceptional case: cf. *slight rage* (see below), *slight exaltation*, *slight despair*, *slight horror*, etc.

Directed feelings2

ANGER$_{(N)}$**1**

X's anger at Y for $Z(Y)$

because of $Z'(Z(Y))$: **Central component** X's unpleasant unfavorable feeling2 directed at person Y or at fact/entity $Z(Y)$ and immediately caused1 by $Z(Y)$ because of properties $Z'(Z(Y))$,

Peripheral components

Stimulus and 1) X believes that Y is responsible for Z and

2) Z is undesirable for X because of Z's properties Z',

Effect this feeling2 causing1 that

1) X wants to immediately do something hostile to Y **(**in order to stop $Z(Y)$**)**

(and

2) X enters in a psychological state in which X can easily lose self-control **(**and X likely loses self-control**))**.

  i. *I felt extreme anger toward this man for wanting to throw me out of my own car!*

ii. *Anger at the new law may turn into anti-government feeling.*

iii. *Anger at trade deals propelled Donald Trump to victory.*

Comments

1. ANGER$_{(N)}$**2** is a countable noun meaning ≈ 'fit of anger' (*I do not know how to handle his frequent angers.*).

2. "$Z(Y)$" stands for 'action, activities or properties Z of Y or products Z of Y's activity'.

3. The second 'and' in the definition (in the Stimulus component) satisfies the De Morgan rule: 'there is no X's anger at Y for $Z(Y)$' entails that 'X does not believe that Y is responsible for Z, or Z is not undesirable for X'.

4. Cf. the different behavior of the component 'X enters in a psychological state in which X can easily lose self-control (and X likely loses self-control)' in the definition of ANGER(N)1 and in that of FEAR(N)I, see above. FEAR(N)I necessarily implies that X enters in such a psychological state, which, however, X can overcome; a similar feeling2 that does not imply such a state at all is called APPREHENSION. On the contrary, ANGER(N)1 covers a very broad range of feelings2, including also a feeling2 that does not imply the state facilitating the loss of self-control (something closer to IRRITATIONII.1 or ANNOYANCE).

RAGE(N)I
X's rage at Y
because of Z(Y) : **Central component**   X's very intense unpleasant unfavorable feeling2 directed at Y and immediately caused1 by fact Z(Y),

Peripheral components
Stimulus   and Z is very undesirable for X because of Z's properties,

Effect   this feeling2 causing1 that
1) X loses self-control
and
2) X wants to do something destructive (and likely does).

  i. *his rage at school teachers for their unfair criticism*
 ii. *He said this with slight rage in his voice.*
iii. *our impotent rage at the weather*

Comment

RAGE(N)II: 'X's intense interest in Y—⌐as if¬ it were rageI' (*popular rage for Latin American dancing*).

2. Names of feelings2 that are reactions to thoughts: undirected only

SADNESS(N)
X's sadness at Y   : **Central component**   X's unpleasant feeling2 caused1 by fact Y^1 concerning entity Y^2,

Peripheral components
Stimulus   and 1) X thinks about Y,
and
2) Y^1 is either undesirable or unattainable for X, Y^2 being desirable for X,
and
3) X believes that X cannot do anything about Y^1.

  i. *sadness at the death*$_{Y^1}$ *of a family member*$_{Y^2}$
 ii. *John's sadness for the past*$_{Y^1}$/*for my dead*$_{Y^1}$ *brother*$_{Y^2}$
iii. *John's sadness for the puppy*$_{Y^2}$

Comments

1. Let us compare SADNESS with UPSETNESS semantically: UPSETNESS is caused1 by a fact Y^1 external to X, while SADNESS is caused1 not simply by fact Y^1, but, more specifically, by X's

thoughts about Y^1. Accordingly, it is normal to speak of *a baby's upsetness*, but not of **a baby's sadness*. More generally, for all feeling**2** names of Group 2, where feelings**2** are caused**1** by thoughts, X cannot refer to a baby. Another manifestation of the said semantic difference is that SADNESS denotes a durable feeling**2**, while UPSETNESS is rather punctual (since it is an immediate psychological reaction to a fact).

2. The semantemes 'and' in the Stimulus component of the definition are accessible to negation and they obey the De Morgan's rule: if X is not sad about Y, it is because X does not think about Y, or because Y^1 is not undesirable/unattainable to him/her, **or** else because X believes that s/he can somehow rectify Y^1.

SORROW(N)
X's sorrow for Y : Central component   X's intense unpleasant feeling**2** caused**1** by fact Y^1 concerning entity Y^2,

                          Peripheral components
                               Stimulus   and 1) X thinks about Y,
                                          and
                                          2) Y^1 is a loss of Y^2 extremely dear to X,
                                          and
                                          3) X believes that X cannot do anything about Y^1.

   i.   *sorrow for the destroyed$_{Y^1}$ Temple$_{Y^2}$*
  ii.   *I felt profound sorrow for my father$_{Y^2}$ because my birth had cost$_{Y^1}$ my mother her life.*
iii.   *her sorrow at John$_{Y^2}$'s death$_{Y^1}$*

FEAR(N)**II.1**
X's fear of Y : Central component   X's unpleasant feeling**2** caused**1** by fact or entity Y,
                     Peripheral components
                             Stimulus   and 1) X thinks about Y,
                                          and
                                          2) X believes that Y can do something bad to X,
                             Effect   this feeling**2** causing**1** that X wants to avoid Y.

   i.   *fear of flying*
  ii.   *Fear of the unknown was driving him all his life.*

FEAR(N)**II.2**
X's fear of Y : Central component   X's unpleasant feeling**2** caused**1** by fact Y,
                     Peripheral components
                             Stimulus   and 1) X thinks about Y,
                                       and
                                       2) Y is undesirable for X,
                                         and
                                         3) X believes that Y is likely.

   i.   *Mary's fear of failure/of failing*
  ii.   *my fear that I won't be enough for her*

Comment
We have given three lexemes of the nominal vocable FEAR(N) (see above, FEAR(N)I); there is a fourth one, FEAR(N)II.3 (as in *my fear for John/for his future*).

HOPE$_{(N)}$

X's hope of Y	: Central component	⟦Y being desirable for X,⟧
		X's pleasant feeling$_2$ caused$_1$ by fact Y,
	Peripheral components	
	Stimulus	and 1) X thinks about Y
		and
		2) X believes that Y is likely.

i.   *his hope of going to Paris*
ii. *our hope for peace*

Comment

In this definition, the semantic component '⟦Y being desirable for X⟧' is a presupposition—such part of the meaning of a statement that cannot be affected by negation: it remains affirmed even when the whole statement is negated. Thus, the sentence *Alan has no hope that Helen will arrive this evening* still means that Helen's arrival is desirable to Alan: what is negated is the belief that this arrival is likely.

> **NB** For a predicative noun (of the type of HOPE$_{(N)}$) the presupposition "manifests itself"
> in a phrase with a light verb: *to feel fear and to have hope.*

3. Names of feelings2 that are reactions to beliefs: directed only

RESPECT$_{(N)}$**I**

X's respect for Y		
for Z(Y)	: Central component	X's favorable feeling$_2$ directed at person Y^1 or at human-related fact/entity Y^2 and caused$_1$ by qualities/actions Z(Y),
	Peripheral components	
	Stimulus	and X believes that Z(Y) have very high moral or social value,
	Effect	this feeling$_2$ causing$_1$ that X believes that X must take Y into consideration.

i.   *my respect for him for taking time off to be with his mother*
ii. *John's respect for the teacher*
iii. *my respect for this invention*

Comment

The component 'X believes that X must take Y into consideration' constitutes the semantic bridge between RESPECT$_{(N)}$I and RESPECT$_{(N)}$II (as in *my respect of public property*: 'X's respect of Y' ≈ 'X's belief that X must take Y into consideration by observing the rules concerning Y').

CONFIDENCE$_{(N)}$

X's confidence in Y		
because of Z(Y)	: Central component	X's favorable feeling$_2$ directed at person Y and caused$_1$ by qualities/actions Z(Y),
	Peripheral components	
	Stimulus	and X believes that Z(Y) are good,
	Effect	this feeling$_2$ causing$_1$ that X trusts Y.

i.   *We had great confidence in John because of his terrific script.*

ii. *My confidence in our police deepened. | My confidence in the efficiency of our police deepened.*

iii. *I have confidence in her sense of orientation.*

4. Names of feelings2 that are reactions to wishes: directed only

LOVE$_{(N)}$**I.2**
X's love for Y
    because of Z(Y) : Central component   X's pleasant intense favorable feeling2 directed at living being Y and caused1 by qualities/actions Z(Y),

        Peripheral components
           Stimulus   and X's wishes to be in contact with Y,
           Effect   this feeling2 causing1 that X cares about Y.

i. *my love for these friends*
ii. *parents' unconditional love for their rogue son*
iii. *Mary's love for her cat*
iv. *people's love for dogs because of the way they respond to you*

Comment

LOVE$_{(N)}$I.2 contrasts with the romantic LOVE$_{(N)}$I.1 (*my love for this girl*) and with the "strong liking" LOVE$_{(N)}$II (*my love for this soup*).

ENVY$_{(N)}$**1**
X's envy of Y
    for Z(Y) : Central component   X's unpleasant unfavorable feeling2 directed at person Y and caused1 by fact Z(Y),

        Peripheral components
           Stimulus   and X wishes to obtain Z that Y has and X does not.

   my envy of John for his success; my envy of John's success

Comment

Cf. ENVY$_{(N)}$2: 'a person Y at whom X's envy1 is directed or a fact/an entity Z causing1 X's envy1' (*Ireland is the envy of Europe.*).

4.2. The restricted syntactic cooccurrence of a feeling2 name: the government pattern

As stated in Subsection *3.2.2*, the number of columns in the government pattern of L depends on L's definition. Consequently, the government patterns of feeling2 names fall into two families: two-actant government patterns for undirected feelings2, e.g., AMAZEMENT; and three-actant government patterns for directed feelings2, e.g., ANGER$_{(N)}$1 and RESPECT$_{(N)}$I. (On correlations between the meaning of a feeling2 name and its government pattern, see Apresjan, V. 2015.)

AMAZEMENT, noun (*X's amazement at Y*)
Government Pattern

'X' $\Longleftrightarrow$ I	'Y' $\Longleftrightarrow$ II	
1. N's	1. *at*	N
2. *of* N	2. *at*	V$_{ING}$
3. A$_0$(N)	3. *with*	N

to the amazement of all students; *amazement at the empty tomb*; *John's amazement at being left out of the match*; *my amazement with the success of the British*; *typical parental amazement at how quickly his girls are growing*

RESPECT$_{(N)}$I, noun (*X's respect for Y for Z(Y)*)

Government Pattern

'X' $\Longleftrightarrow$ I	'Y' $\Longleftrightarrow$ II	'Z(Y)' $\Longleftrightarrow$ III
1. N's	1. *for* N	1. *for* N
2. *of* N		
3. A$_0$(N)		

I have a lot of respect for Johnson for his career and qualities.

Moreover, within the feeling**2** name groups, the government patterns belonging to the same-cause type subgroups show additional similarities as far as the surface expressions of actants are concerned. Thus, SURPRISE has the same government pattern as AMAZEMENT, and CONTEMPT, the same as RESPECT$_{(N)}$I.

4.3. Semantic derivation and restricted lexical cooccurrence of a feeling2 name: lexical functions

Feeling**2** names are known to have extremely rich lexical "entourage," especially restricted lexical cooccurrence: each controls, as a rule, a host of variegated collocations. Because of their relative semantic homogeneity, the feeling**2** names' semantic derivations and lexical cooccurrence also show considerable similarity. As is to be expected, within semantic subgroups of feeling**2** names this similarity is even higher. To illustrate, we can mention the following lexical functions systematically found with feeling**2** names.

• A feeling**2** name normally has a corresponding adjective to qualify the person who is experiencing this feeling**2**—lexical function A$_1$ (in some cases, the feeling**2** name is formally built on the stem of this adjective, such as CONFIDENT ∼ CONFIDENCE, GLAD ∼ GLADNESS or SAD ∼ SADNESS; on the possibility of opposite directions of semantic and formal derivation, see Mel'čuk 2006: 529–532, Item 7).

> A$_1$(ANGER$_{(N)}$**1**)   : angry
> A$_1$(DESPAIR)   : desperate
> A$_1$(JOY I.**1**)   : joyful

• A feeling**2** name can also have another derived adjective to qualify the person who is prone to experience this feeling**2**—lexical function Able$_1$:

> Able$_1$(ANGER$_{(N)}$**1**)   : irascible
> Able$_1$(FEAR$_{(N)}$I)   : cowardly
> Able$_1$(EMBARRASSMENT)   : bashful

• Numerous feeling**2** names have an associated metaphoric noun that serves to express a high intensity of the feeling**2**—lexical function `Figur`:

`Figur`(DESPAIR) : chasm [of ∼]
`Figur`(JOY I.1) : flame [of ∼]
`Figur`(REMORSE) : pangs [of ∼]

• Since feelings**2** are gradable by their nature (different degrees of arousal of the feeling**2** system), all feeling**2** names have phraseologized intensifiers and attenuators, for instance:

`Magn`(JOY I.1) : acute, strong < heavenly, paradisiac
`AntiMagn`(JOY I.1) : slight [*He felt slight joy at the idea that Fox has stayed behind.*]
`Magn`(RESPECT$_{(N)}$I) : deep, profound, high < highest, immense
`AntiMagn`(RESPECT$_{(N)}$I) : scant
`Magn`(DESPAIR) : black, dark, deep < violent < utmost, utter

• All feeling**2** names have the same light verbs `Oper`$_1$: *feel, experience* JOY/ANGER/AMAZEMENT/ ... (without taking into account several specific verbs expressing `Oper`$_1$ together with additional semantic components).

• A feeling**2** name L whose definition includes the component 'causing**1** that X wants to …' or 'causing**1** that X enters in such a psychological state that s/he is likely to lose self-control' has the LF `Real`$_1$ 'X does what L requires of X to do' or LF `Fact`$_1$ 'L does to X what L is required to do to X':

`Real`$_{1\,['want']}$(ANGER$_{(N)}$1) : vent [A$_{(poss)}$(N$_X$) ∼ on N$_Y$]
`Real`$_{1\,['want']}$(FEAR$_{(N)}$I) : flee [in/with ∼]
`Fact`$_{1\,['losing\,self-control']}$(ANGER$_{(N)}$1) : blinds [N$_X$]
`Fact`$_{1['losing\,self-control']}$(FEAR$_{(N)}$I) : overcomes, possesses [N$_X$], ⌜eats the heart⌝ [out of N$_X$]

• As a rule, the name of a feeling**2**-reaction L controls several phraseological expressions denoting L's "physical symptoms," or "bodily manifestations." These expressions are specified by the LF `Sympt`, which thus has a special significance for the lexicographic description of feeling**2** LUs and deserves a more detailed characterization (Iordanskaja 1972 and 1986).

The LF `Sympt` applies to an LU L denoting a feeling**2** (or any other psychological event, such as a sensation, a thought or a wish). Generally speaking, it is a three-actantial verb `Sympt`$_{123}$(L), where the actantial subscript 1 corresponds to the experiencer X of the feeling**2** L, 2 to L′, the name of X's body part by which L is manifested, and 3 to the feeling**2** L itself. For instance, `Sympt`$_{123}$(EMBARRASSMENT) can be exemplified by *John$_I$ became scarlet in the face$_{II}$ with embarrassment$_{III}$*.

`Sympt` is mostly used in a combination with an **f**(L′), where **f** is one of the following three LFs, which describe the behavior of the body part L′:

—`Excess`, denoting excessive "functioning" of L′;
—`Obstr`, denoting L′'s insufficient/incorrect "functioning";
—`Degrad`, denoting an interruption of L′'s "functioning."

In order to ensure a more precise semantic characterization of L′'s behavior, three superscripts to **f** are used:

```
motor
```
　　　　meaning 'concerning movements';
```
color
```
　　　　meaning 'concerning coloring'; and
```
express
```
　　　meaning 'concerning expressiveness'.

As a result, we have a compound LF of the following form:
$$\mathbf{f}^{\text{motor/color/express}}(\text{L}')—\texttt{Sympt}(\text{L}): \mathbf{E_1, E_2, \ldots, E_n.}$$

For instance:

$\texttt{Degrad}^{\text{motor}}(\text{TONGUE})—\texttt{Sympt}_{13}(\text{EMBARRASSMENT})$　: [Nx] is tongue-tied
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　([with embarrassment])

$\texttt{Degrad}^{\text{motor}}(\text{TONGUE})—\texttt{Sympt}_{23}(\text{FEAR}_{(N)}\text{I})$　: [N$_X$'s] tongue is frozen
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　([with fear])

$\texttt{Excess}^{\text{motor}}(\text{JAW})—\texttt{Sympt}_{23}(\text{AMAZEMENT})$　: [N$_X$'s] jaw drops, sags
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　([in amazement])

`Sympt`-expressions—that is, elements of the value of `Sympt`—have two important properties.

First, a `Sympt`-expression is different from other LF values. A "normal" syntagmatic LF(L) supplies an appropriate collocate to the collocation base L (= the keyword of the LF), so that L necessarily appears in the text together with the element of the LF's value. Not so with `Sympt`. An element of the `Sympt`(L)'s value is a phrase whose meaning includes (or at least implies) the meaning of L, and because of this, L itself—the keyword—can be absent from the text. In fact, most of the time, it is expressed optionally, when the context is not sufficiently clear. *John remained tongue-tied* can by itself mean that John was embarrassed, and the phrase *with embarrassment* is not necessary, although still possible.

Second, a `Sympt`-expression does not necessarily describe X's actual physiological reaction; it can be used strictly metaphorically, so that *John pooped his pants* can simply mean 'John had a terrible fear'. As a result, the LF `Sympt` participates in the following deep-syntactic paraphrasing rule:

$$\mathbf{f}(\text{L}')—\texttt{Sympt}(\text{L}) \cong \texttt{Magn}(\text{L}) + \text{L}$$
John pooped his pants. $\cong$ *John had a terrible fear.*
John's jaw dropped. $\cong$ *John was utterly amazed.*

5. The lexical entry for an English feeling2 name: ANGER$_{(N)}$1

The noun ANGER$_{(N)}$1 has been chosen as a developed lexicographic illustration in this paper for two main reasons: **1**) This lexeme is very rich in restricted syntactic and lexical cooccurrence, thus presenting many possibilities for exemplifying various lexicographic phenomena and problems. 2) It was previously treated by several first-class researchers—Wierzbicka 1972 and 1999: 87–89, Lakoff and Johnson 1980, Kövecses 1986, Zaliznjak, Anna 1992, Apresjan, V. 2011, so that we had excellent data at our disposal.

☛ The circled numbers as superscripts refer to comments at the end of this section.

ANGER$_{(N)}$1, noun, uncountable.

Definition

X's anger at Y for Z(Y)
   because of Z'(Z(Y)) :   **Central component**   X's unpleasant unfavorable feeling**2** directed at person Y or at fact/entity Z(Y) and immediately caused**1** by Z(Y) because of properties Z'(Z(Y)),

                      Peripheral components
                            Stimulus   and 1) X believes that Y is responsible for Z and

                                     2) Z is undesirable for X, because of Z's properties Z',

                            Effect   this feeling**2** causing**1** that
                                     1) X wants to immediately do something hostile to Y (in order to stop Z(Y)) (and
                                     2) X enters in a psychological state in which X can easily lose self-control (and X likely loses self-control)).

Government Pattern 1 *(X's anger at person Y for Z(Y) because of Z(Y)'s property Z')* ①

'X' ⟺ I	'Y' ⟺ II	'Z(Y)' ⟺ III		'Z'(Z(Y))' ⟺ IV
1. N's	1. *against* N	1. *for*	N	1. *because of* N
2. *of* N	2. *at* N	2. *for*	V$_{GER}$	
3. A$_0$(N)	3. *toward* N	3. *over*	N	
		4. *over*	V$_{GER}$	

Our anger against strangers is rarely helpful. | *They wanted to show their anger at the government for signing the pact because of its inappropriateness.* | *The British anger at Qatar over this move would be a positive signal.* | *She felt a lot of anger toward her parents for leaving her there.*
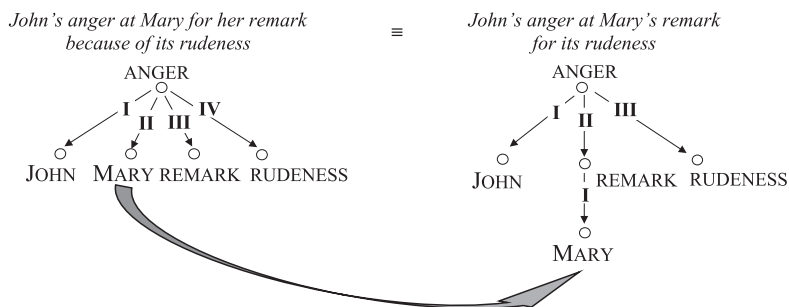
Government Pattern 2 *(X's anger at human-induced fact/entity Z(Y) for its properties Z')*

'X' ⟺ I	'Z(Y)' ⟺ II		'Z'(Z(Y))' ⟺ III
1. N's	1. *at*	N	1. *for* N
2. *of* N	2. *over*	N	
3. A$_0$(N)	3. *over*	V$_{GER}$	

the widespread anger at this sentence for its severity; *their anger over rising prices*; *the Chinese anger at India's growing strategic cooperation with Japan*

GP 2 = Conv_{134}(GP **1**), II$_{\text{GP 1}}$ ⇒ I(II)$_{\text{GP 2}}$ [Possessor Lowering transformation]②

The two government patterns are related as follows:

John's anger at Mary for her remark   ≡   *John's anger at Mary's remark*
because of its rudeness   *for its rudeness*

ANGER   ANGER

I   II   III   IV   I   II   III

JOHN   MARY   REMARK   RUDENESS   JOHN   REMARK   RUDENESS

MARY

Lexical Functions

$\mathrm{Syn}_{\supset}$ [3]	:	fury; indignation; outrage; **formal** wrath; **archaic** ire
$\mathrm{Syn}_{\cap}$	:	rage**I**
Anti	:	gratefulness; gratitude
Gener	:	feeling**2** [of ∼] [*Wilma tried to repress his feeling of anger.*]
[Magn+Gener]	:	emotion [of ∼] [*A weak leader carefully cultivates his emotion of anger.*]
[Magn+Figur]	:	fire, flame [of ∼]; firestorm [of ∼]
S_2	:	object, subject, target [of ART ∼]
S_3	:	cause, object, subject [of ART ∼], reason [for ART ∼]
Sing	:	anger**2**
[Magn+Sing]	:	[∼] attack; burst [of ∼]; fit [of ∼]; flash [of ∼]; gust [of ∼]
Germ	:	seeds [of ∼]
A_1	:	in [∼] //angry
[Magn+A_1]	:	filled [with ∼], full [of ∼] < consumed [by ∼] // ⌜blue in the face⌝, ⌜hot under the collar⌝
[AntiVer+Magn+A_1]	:	//steamed-up [*I don't see why you got steamed-up about this slip of the tongue.*]
Able_1	:	irascible
$\mathrm{PredAble}_1$	:	⌜be on a short fuse⌝, ⌜have a short fuse⌝
Qual_1	:	hot-tempered, short-tempered
Magn	:	deep, fierce, great< extreme; red < black; towering; unbridled, uncontrollable; ⌜a lot⌝ [of ∼]; over-the-top [∼] //≈ fury; ≈ rage**I**
$\mathrm{Magn}_1^{\mathrm{quant}}$	:	widespread
AntiMagn	:	slight; ⌜a little bit⌝ [of ∼] //annoyance
IncepPredPlus	:	⌜builds up⌝, grows, mounts, rises, ⌜swells up⌝, ⌜wells up⌝ [inside N_X]
CausPredPlus	:	fuel, stir [ART ∼]
IncepPredMinus	:	cools, fades, ⌜goes away⌝, subsides
CausPredMinus	:	soothe [ART ∼]
Ver	:	righteous
[Bon+Ver]	:	noble
Adv_1	:	in [∼], with [∼] //angrily
Oper_1	:	feel, have [∼]
$\mathrm{IncepOper}_1$	:	//**slang** ⌜go apeshit⌝, **slang** ⌜have a cow⌝, **slang** ⌜have kittens⌝
[Magn+Oper_1]	:	be filled [with ∼], be full [of ∼]; blaze [with ∼]; boil, burst, seethe [with ∼] < //be fuming

[Magn+IncepOper$_1$]	:	erupt [in ∼], fly [into (an) ∼] //⌐blow up⌐ [at N$_Y$], ⌐blow a fuse⌐, ⌐blow a gasket⌐, ⌐blow [N$_X$'s] stack⌐, ⌐blow [N$_X$'s] top⌐, explode, ⌐fly off the handle⌐, ⌐go through the roof⌐, ⌐hit the ceiling⌐, ⌐see red⌐
CausOper$_1$	:	//anger$_{(V)}$ [N$_X$]
IncepOper$_2$	:	attract, draw [ART ∼]
CausIncepFunc$_0$	:	provoke [∼]; arouse, spark [ART ∼]
Caus$_2$ContFunc$_0$	:	feed [ART ∼]
[Magn+Func$_1$]	:	boils, bubbles, seethes [in N$_X$/in N$_X$'s gut/in N$_X$'s soul]; fills, overcomes, seizes [N$_X$]; devours [N$_X$] (from inside) //⌐Smoke ⟨Steam⟩ is coming ⟨pouring⟩ out⌐ [of N$_X$'s ears]
[Magn+IncepFunc$_1$]	:	explodes [in N$_X$]
Func$_2$	:	falls [on N$_Y$]
Caus$_2$Func$_2$	:	attract, draw [ART ∼]
Real$_{1\text{['hostile action']}}$ [④]	:	vent [A$_{(poss)}$(N$_X$) ∼ on N$_Y$]

☛ The notation "A$_{(poss)}$(N)" stands for 'possessive pronominal adjective of N,' that is, *my*, *your*, *his/her*, …

Adv$_1$Real$_{1\text{['hostile action']}}$	:'out of' [∼]
SingS$_0$Real$_{1\text{['hostile action']}}$	:outburst [of ∼], [angry] outburst
Real$_{1\text{['hostile action']}}$–II→W | W is not responsible for Z	:'take out' [A$_{(poss)}$(N$_X$) ∼ on N$_W$] //'take it out' [on N$_W$]
Real$_{1\text{['loss of self-control']}}$	:⌐be beside oneself⌐ [with ∼]
Real$_{2\text{['hostile action']}}$	:endure [N$_X$'s ∼]
Fact$_{0\text{['loss of self-control']}}$	:explodes
Perm$_1$Fact$_0$	:⌐give vent⌐ [to A$_{(poss)}$(N$_X$) ∼], ⌐let out⌐, unleash [A$_{(poss)}$(N$_X$) ∼]
NonPerm$_1$Fact$_0$	:contain, control [A$_{(poss)}$(N$_X$) ∼]; stifle, suppress [A$_{(poss)}$(N$_X$) ∼]
A$_2$NonPerm$_1$Fact$_0$	:pent-up; suppressed
Fact$_{1\text{['loss of self-control']}}$	:blinds [N$_X$]
Excess^{motor}(*body*)—Sympt$_{23}$	:[N$_X$] is shaking [with ∼]
Obstr(*breath*)—Sympt$_{23}$	:[N$_X$] is choking [of ∼]
Excess^{motor}(*brows*)—Sympt$_{213}$	:[N$_X$] furrows [A$_{(poss)}$(N$_X$) brows ([in ∼])
Excess^{express}(*eyes*)—Sympt$_{13}$	:[N$_X$'s eyes] shine [with ∼]
Excess^{express}(*eyes*)—Sympt$_2$	:[N$_X$] ⌐looks daggers⌐ [at N$_Y$]
Excess^{express}(*eyes*)—Sympt$_{32}$	:seethes [in N$_X$'s eyes]
Excess^{motor}(*face*)—Sympt$_2$	://[N$_X$] snarls [at N$_Y$]
Excess^{color}(*face*)—Sympt$_{13}$	:[N$_X$'s face] turns red ([with ∼])
Excess^{color}(*face*)—Sympt$_{23}$	:[N$_X$] is flushed ⟨is red⟩ ([with ∼])
Excess^{motor}(*teeth*)—Sympt$_{213}$	:[N$_X$] grinds [A$_{(poss)}$(N$_X$)] teeth ([in ∼])
Degrad^{color}(*face*)—Sympt$_{13}$	:[N$_X$'s face] blanches [with ∼]; [N$_X$'s face] ⌐clouds over⌐ ([with ∼])
Degrad^{color}(*face*)—Sympt$_{23}$	:[N$_X$] is livid [with ∼]
Excess^{motor}(*feet*)—Sympt$_{213}$	:[N$_X$] stamps, stomps [A$_{(poss)}$(N$_X$)] feet [in ∼] //thumps [A$_{(poss)}$(N$_X$)] feet
Excess(*voice*)—Sympt$_{23}$	:shouts, yells [in ∼]
methods for X for dealing with X's A.	:[∼] management
I signal that I Oper$_1$ A.	:Argh! | Damn! | Jesus! | Shit!
X makes gestures manifesting X's A.	://[N$_X$] pounds fists on the table, thumps the table with [A$_{(poss)}$(N$_X$)] fists

Typical metaphors of ANGER$_{(N)}$1 (see Section 7)

Anger is fire.

Anger is fever.

Anger is hot liquid in a container.

Anger is a dangerous beast.

Anger is the adversary in a struggle.

Comments

① Two government patterns are needed because the noun ANGER$_{(N)}$1 can be used in two different syntactic constructions:

> X's anger at person Y for Y's actions Z because of Z's properties Z'
> (*their anger at the government for signing the pact because of its moral inappropriateness*)

or

> X's anger at human-induced fact Z for Z's property Z'
> (*their anger at the pact for its irrationality*).

② This notation means that the semantic actant Y of ANGER$_{(N)}$1 is expressed, in this syntactic modification, by DSynt-actant **I** of DSynt-actant **II**, which in the Government Pattern **2** corresponds to the Sem-actant Z; it is implemented according to the Government Pattern of the lexeme that expresses this DSynt-actant **II**.

③ The set-theoretical symbol of inclusion "⊃" indicates a richer (= more specific) synonym: 'helicopter' ⊃ 'aircraft'; the set-theoretical symbol of intersection "∩" indicates synonyms with overlapping meanings: 'insult' ∩ 'offense'.

④ The subscript in square brackets to the name of a lexical function identifies the semantic component in the definition of its keyword on which bears the meaning of this function.

6. Possible generalizations for the lexicographic description of semantic classes as well as semantic and lexical fields

The proposed lexicographic description of feeling**2** names lends itself to different generalizations, of which we will mention here general schemata, or templates, for lexical entries, the use of semantic labels and lexical inheritance.

Arbatchewsky-Jumarie and Iordanskaja 1988 propose to elaborate general schemata for lexical entries within a semantic field and superentries within a lexical field; this technique allows for a better standardization and coherence of lexical entries.

The next step is the introduction of a semantic label (Polguère 2006 and 2011)—a semanteme (or a configuration of semantemes) that identifies the semantic class to which the particular LU belongs and that constitutes the central component in the definitions of all the LUs of the same semantic class. The lexical entries for these LUs are built under the control of the semantic label, which determines, to some extent, its syntactic and lexical cooccurrence: the phenomenon known as lexical inheritance.

A specific feeling**2** name L having the semantic label 'feeling**2** [caused**1** by]' includes its semantic content and, therefore, necessarily shares its semantic properties. Similarly, there are just two syntactic patterns for feeling**2** names, corresponding to undirected *vs.* directed feelings**2**: a two-actantial government pattern for undirected feeling**2** names and a three-

actantial one for directed feeling2 names. And, finally, L's collocations—its restricted lexical cooccurrence—resemble those of the semantically close feeling2 names. Lexical inheritance means that semantic, syntactic and lexical properties come to L, at least partially, from the generic LU in terms of which L is defined: see Mel'čuk and Wanner 1996. This is possible because of strong correlations between the sememes in the definition, the actantial structures and the lexical functions with their values. Due to the relative semantic homogeneity, feeling2 names are especially fit to practice lexical inheritance.

More specifically, the lexical entry for the central LU of the semantic field under analysis—for us, FEELING2—serves as a source of lexicographic data for the names {L_i} of concrete feelings2. In many cases (although, of course, by no means in all) it is possible to use in L_i's entry a simple reference to the FEELING2 entry, instead of a full description. To facilitate this procedure, the FEELING2 entry must include what is called "Public Subentry" (Mel'čuk and Wanner 1996: 238–240)—that is, some lexicographic data, such as government patterns and lexical functions concerning not the lexeme FEELING2 itself, but rather its hierarchic subordinates, i.e. concrete feeling2 names.

Of course, these proposals have a much larger reach than just feeling2 LUs; but for the latter, they are especially convenient.

7. Linguistic metaphor in a lexicographic description

An influential approach to the description of feeling2 lexeme meanings proposes using linguistic metaphor: for instance, Kövecses 1986 and Lakoff 1987. According to these authors, ANGER can be described as hot fluid in a container (because English says *She was boiling with anger*, etc.), as a dangerous animal (*He unleashed his anger.*), as fire (*He was consumed by his anger.*), and the like. These are interesting considerations, but they bear on feelings2 themselves rather than on feeling2 lexemes. The metaphors involved are, of course, extracted from linguistic—namely, lexical—cooccurrence, yet characterize the feelings2 as concepts: thus, in a number of Kövecses's and Lakoff's examples for the ANGER concept, the lexeme ANGER is absent altogether (*He simply drives me mad! | I reached the boiling point. | Simmer down!*), which indicates that the object of their study is a feeling2— a psychological phenomenon, or the corresponding concept—but not the lexical units as such. (Kövecses 1993: 264 explicitly claims that "the study of reference should be an equally important part of the semanticists' enterprise.") Since our goal is the purely linguistic behavior of lexical units, this perspective cannot be our choice.

Apresjan, V. and Apresjan, Ju. 1993, pursuing the lexicographic description of the feeling2 lexemes, state that a particular type of metaphor—namely, a comparison of a feeling2 with a sensation ("bodily metaphors of feelings2")—should be included in the definition of the corresponding lexeme. Thus, in their definition of STRAX 'fear' we find the following component [the translation from Russian is ours—LI and IM]: 'X's soul feels something similar to what X's body feels when X is cold'. The authors state explicitly that such metaphorical components are not characteristic of all feeling2 lexemes. However, even in the case of STRAX, this comparison within the definition does not seem necessary to us: it simply reflects the fact that a lot of expressions in restricted lexical cooccurrence of STRAX are based on the metaphor of cold. Saying that STRAX is somehow similar to the sensation of cold is, if you wish, a metalinguistic statement—a generalization over the observed set of collocations. Similarly, the relevant observations in Apresjan, V. 1995—the names of pleasant, that is, positive, feelings2, such as JOY1, LOVE1.2, ADMIRATION, are associated with light,

while the names of the unpleasant, or negative, feelings2, such as FEAR, HATE, RAGEI, imply rather darkness—can be included in the corresponding lexical entry, but not into the definition. We propose to store the corresponding indications in a special section of the lexical entry: the section of typical metaphors.

In some cases of polysemy, the definition of the feeling2 lexeme must include the reference to the bodily sensation lexeme. A good example is the noun AVERSION, a vocable with two lexemes, where the second includes an explicit comparison with the denotation of the first one:

AVERSIONI

X's aversion to Y: 'X's very unpleasant intense sensation immediately caused1 by X's
perceptual contact with a fact/an entity Y,
and this contact is very undesirable for X,
this sensation causing1 that X wants to avoid this contact'.

A baby can develop an aversion to feeding. | *her aversion to spiders*; *the cat's aversion to water*

AVERSIONII

X's aversion to Y: 'X's very intense dislike of Y—⌐as if⌐ it were X's aversionI to Y'.
her natural aversion to anything involving law enforcement

Quite a similar situation obtains with PAIN(N):

PAIN(N)I

X's *pain in Y*: 'X's unpleasant sensation such that is immediately caused1 by a sharp
physical impact on X's body part Y'.
an excruciating pain in his right leg

PAIN(N)II

X's pain   : 'X's very intense unhappiness—⌐as if⌐ it were X's painI in the soul'.
This event caused a lasting pain for her.

8. Short overview of linguistic descriptions of feeling2 lexical units

Feelings2 play an extremely important role in human life, so that there is small wonder that they have always been in the focus of scientists' and scholars' attention. Philosophers (from Plato and Aristotle to Descartes and Leibnitz to Wittgenstein and Wierzbicka) and psychologists of all denominations have written tons and tons of books and papers, which it is impossible to overview—although these publications contain a huge amount of useful observations and interesting proposals. However, this huge literature is dedicated to feelings2 rather than to the words denoting them. Thus, one of the best known and most linguistic of these studies, Davitz 1969, where 50 English frequently used feeling2 nouns are evaluated by 50 speakers in terms of a checklist of 556 expressions that describe physiological sensations as reactions to feelings2 (No. 7: *a gnawing feeling in the pit of my stomach*; No. 30: *blood rushes to my head as if I'm intoxicated*; etc.); the subjects were asked to associate nouns with the corresponding expressions. The results are very interesting, but they are about associating feeling2 words to actual feelings2—that is, not about the meaning of these words. Twenty years later, Johnson-Laird and Oatley 1989 continues and successfully develops the research into English feeling2 words along a similar path: using an

advanced theory of emotions to buttress a semantic analysis of English words referring to emotions. However, this paper puts more emphasis on a linguistically oriented approach; among other things, it contains "A corpus of 590 emotional words and their analyses in terms of the five families of emotional modes."

The very first publications that addressed a purely linguistic description of feeling**2** words are, as far as we know, Iordanskaja 1970 and Wierzbicka 1971. Since then Wierzbicka has developed and deepened her investigations: Wierzbicka 1972: 57–70, 1992: 119-179 and 1999, without mentioning a host of minor titles. Wierzbicka's work has been in some sense, continued in Zaliznjak 1992 and Apresjan, V. 1995 and 2011.

The publications on the topic—descriptions of feeling**2** lexical units in various languages—are, as we said above, very numerous; we limit ourselves to three major collections, where one finds an abundant bibliography. Grossmann and Tutin (eds) 2005 and Novakova and Tutin (eds) 2009 offer several studies concerning the lexicographic description of feeling**2** names: for instance, countable/uncountable character of feeling**2** names in French and the use of articles; Blumenthal *et al.* (eds) 2014 is dedicated to corpus-based investigations of feeling**2** lexical units in English, French, German, Greek, Polish and Arabic—from the viewpoint of their meanings, their collocations, and their syntactic uses.

We hope that the present paper, taking into account the results of previous studies, represents a step ahead towards a formal and systematic lexicographic description of English feeling**2** lexemes. More specifically, a general schema of feeling**2** lexeme definitions is proposed, according to which four major classes of feeling**2** lexemes are established and illustrated with a series of actual definitions and a full lexicographic entry for the noun ANGER**1**.

Notes

1. There are at least two psychological reasons that make people prefer the noun EMOTION (over FEELING):

   —*emotion* is not ambiguous, while *feeling* is: it denotes both sensations ('body-induced feelings**1**') and feelings**2** ('psyche-induced feelings**1**').

   —*emotion* has a relational adjective *emotional*, while *feeling* has no such adjective.

   However, semantic reasons do not allow us to use 'emotion' as the basic element in the lexicographic definitions of feeling**2** lexemes.

2. Three-actant feeling**2** names can have a four-actant modification, as we see in the case of ANGER1, Section 5.

Acknowledgments

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