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## THE SEME 'STRONG' IN LEXICOLOGICAL DEFINITIONS

### **Abstract**

This is an in-depth analysis of a selection of English lexemes containing the seme 'strong', performed by means of the collocational method as devised and elaborated by the author in his previous articles. This kind of approach shows the way language really works and that there is no clear borderline between *langue* and *parole*, or between lexis and syntax.

**Key words:** semantic definition, collocation, seme, sememe, classeme, cryptotype

### **1. Introduction**

Defining lexemes in a scientific way is a rigorous task, which requires insight into the whole lexical system, or at least into a large part of it. When applying our collocational method to this aim<sup>1</sup> (Hlebec 2007, 2008a, 2008b, 2008c, 2010, 2011a, 2011b), the present author has come across

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<sup>1</sup> Sources of collocations have been various: British National Corpus, Corpus of Contemporary American English, *Oxford Collocational Dictionary for Students of English*, *The Cassell Dictionary of Appropriate Adjectives*, *Dictionary of Selected Collocations* among the most frequently consulted. Slang, literary style and specialized terms have not been taken into account.

a defining seme<sup>2</sup> ‘strong’ as a recurrent element in quite a lot of lexemes.<sup>3</sup> This topic merits a whole volume, and the article reveals only a part of its extensive use. ‘Strong’ is to be understood in its abstract meaning ‘of great intensity’ rather than in its concrete meaning ‘of great bodily strength’.

The crucial step in the application of the collocational method is to ascertain the common content of the directive. This may be time-consuming, but it is not an impossible task. For instance, to establish the unifying content of the nouns *conflict*, *confrontation*, *crime*, *debate*, *difference*, *dispute*, *fight*, *offence*, *quarrel*, *rebellion*, *riot* and *threat* the researcher could impressionistically decide that they all denote a conflict. But then, for one thing, what kind of conflict, and, secondly, in what terms to couch the idea of conflict in order to label semantic units?

Delimiting the meaning of polysemous lexemes is an important step in the collocational method because the precise identification of meaning content would be impossible without it. This is done by means of the test of zeugma and with the help of dictionaries.

## 2. Analysis

At first glance, the adjectives *serious* and *severe* may look synonymous (cf. *serious* or *severe anxiety/attack/competition/conflict/crisis/difficulty/doubt/problem*), but restrictions are noticeable as well: \**serious hair/penalty* vs. *severe hair/penalty*, *serious dilemma* vs. \**severe dilemma*. To find out the

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<sup>2</sup> The term *seme* stands for a semantic element, part of a semantic definition. The term *sememe* will be used for one sense of a lexeme, morpheme or grammatical category. The part of a verb sememe definition or an adjective sememe definition that establishes connections with noun sememes is called *directive*, while the rest of the verb/adjective sememe definition is *analysis* (Wiggins 1971: 26). Two hashes (# #) flank directives, while angular brackets (< >) mark definitions. Classeme is the principal, initial part of the noun definition common to a number of nouns. It roughly corresponds to semantic marker in generative semantics. Braces ({ }) stand for ‘typically’.

<sup>3</sup> The semantic element ‘strong’ has been pointed out by Apresjan in Russian sentences 1. *Éto privodit ego v bešenstvo*. ‘That drives him wild’ 2. *Éto privodit ego v gnev*. ‘That drives him angry’ 3. *Éto privodit ego v zlost*. ‘That drives him malicious’, where “the degree of correctness of the sentence corresponds with the degree of intensity of emotion that is rendered by the substantive” (Kortland 1971: 57). According to the same author (Apresjan 2000: 38), *anger*, *wrath*, *rage* and *fury* differ in intensity (*wrath* is stronger than *anger*, and *rage* and *fury* are stronger than *wrath*).

underlying cause for the behaviour of these two lexemes, we are going to probe into their meanings by means of the collocational method.

The semantic element 'strong' occurs in all definition analyses of the *serious*'s sememes: **1** <#(sb who | does – is in/expression of)<sup>4</sup> {mental} event-state/behaviour /situation<sup>5</sup># that is important/true and strong> s. *argument/article/attention/book/business/competition/consideration/difference/discussion/idea/implication/interest/literature/matter/music/newspaper/piece of art/point/political force/relationship/suggestion/talk /talking/thinking/thought; Is it getting s. with you and Mary? His speech turned s.; s. artist/boyfriend/candidate/contender/runner (indirect); You look very s. today (ind.). Be s. (ind.); a very s. person (ind.); I'm being s. (ind.); s. expression/eyes/face (ind.)* **2** <#(sb who | does – is in) bad event-state# that is strong {and can make sth very bad}> s. *accident/affliction/anarchy/anxiety/argument/attack/blunder/case/competition/concern/condition/conflict/confrontation/confusion/crime/crisis/damage/debate/defeat/difference/difficulty/dilemma/disability/disagreement/disorder/dispute/distress/disturbance/doubt/embarrassment/error/famine/fear/fight/fighting/hardship/hatred/hostilities/illness/infection/injury/issue/loss/matter/miscalculation/misconception/mistake/obstacle/offence/pain/point/problem/quarrel/question/racism/rebellion/recession/riot/row/shock/shortage/situation/suspicion/tension/threat/trouble/unemployment/unrest/violence/worry; s. criminal/offender (indirect)* **3** <#(sb<sub>1</sub> who does) event<sub>1</sub> when sb<sub>1</sub> uses sb<sub>1</sub>'s energy wanting to do event<sub>2</sub># that is strong> s. *attempt/blow/effort/endeavour/throw; She is s. to follow the plan/about*

<sup>4</sup> If an adjective or verb is attached to its noun by means of an extension of the directive, this is marked by round brackets and the connection is called *indirect connection* (Hlebec 2007: 82) or semantic transfer (Leech 1990: 223). Whenever 'strong' is present in the analysis, indirect connection does not rule out the predicative use of an adjective (Hlebec 2010: 80). Thus, *The criticism/weather was fierce, His eyes are fierce* are permissible sentences. But if the connection is doubly indirect, predicate use is disallowed (Hlebec 2010: 81), as in *\*The food is fast* '#((food) eaten by sb in) event# that is strong in speed'.

<sup>5</sup> The semes 'event' (or 'activity') and 'state' have been brought to light by extrapolating grammatical opposition between progressive (dynamic situation viewed as consisting of parts) and non-progressive aspect (viewed as an indivisible whole), and they are corroborated by Dixon's analysis (Dixon 2005: passim). State nouns agree with the verb *develop* and they are uncountable, while event nouns, with the exception of gerunds, are countable. Quite a lot of nouns can be both states and events (like *conflict* in serious 1 and 2). The metalinguistic term 'situation' is used for a vague notion conveyed by the impersonal *it*, when there is no obvious animate agent. A hyphen indicates that the items separated alternate (either item applies).

becoming an actress. (indirect) 4 (informal) <#sth not living# that is strongly good-strong> s. *eating/haircut/hiking/jacket/money/walking/wine*.

The analyses in the definitions need further refinement. The semes 'very' and 'strong' are in fact reducible to a single seme. This becomes obvious when we become aware of the identity in semantic terms between 'very hot' and 'strong heat' or between 'I very much support the case' and 'I strongly support the case'. In other words, if we want to minimize the number of cryptotypes (simple semes of directives)<sup>6</sup>, 'strongly strong' or 'strongly bad' is preferred to 'very strong' or 'very bad'. The morpheme *-ly* is here only for the sake of part-of-speech<sup>7</sup> agreement. The two 'strong's' combine to produce the meaning 'strongly strong' (= 'of very great intensity', 'very intense').<sup>8</sup>

How do we know that 'strong' is a part of an adjective analysis? Again by relying on collocations. If an adjective has *slightly* or *mildly* as collocates, it does not contain 'strong', like the adjectives *amusing*, *different*, *surprised*, *poisonous*, and *mad* ('crazy'). An adjective contains 'strong' if it does not (readily) collocate with *mildly*, *slightly* and *simply* (meaning 'as much as possible' rather than 'and nothing more'). Examples are *serious* and *bright* (= 'very light'). An adjective contains 'strongly strong' if collocable with *simply* 'as much as possible' and not with *intensely* (unless *intensely* is modified in turn, as in *such intensely dazzling moonlight* or *yet so intensely*

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<sup>6</sup> The term *cryptotype* has been introduced in memory of Benjamin Lee Whorf, who used it for covert grammatical categories (Whorf 1973: 70).

<sup>7</sup> Likewise, *severity of battle* is the same collocation as *severe battle* but with a modified grammatical (part-of-speech) meaning of the adjective.

<sup>8</sup> Mel'čuk (1987: 103) mentions the lexical function **Magn**, "glossed roughly as 'very'", which appears in quite many words: *high (temperature)*, *considerable*, *great*, *enormous (height)*, *strong*, *intense (vibration)*. There is a similarity between the notion of lexical function and cryptotype in our approach, but there are also important differences. For Mel'čuk, a lexical function is not a genuine semantic unit (1987: 96) because lexical functions are not language-specific and they are arrived at deductively. On the contrary, cryptotypes are claimed to be meant natural language-specific units established by inductive reasoning.

Goddard and Wierzbicka (1994: 34) mention 'very' as a tentative prime, and in the edition of 2002 they confirm this status. The semes 'strong' and 'very' can be found in the list of 28 or 27 semantic primes in Hlebec (2007: 12 and 2010: 10).

According to the reasoning presented here, the number of primes is to be reduced to 26 (the number of letters in the English alphabet!).

*furious wind*), like *absurd*, *adorable*, *awful*, *brilliant*, *dazzling*, *furious*, *irresistible*, and *splendid*.

The reduplication that ensues ('strongly strong') reminds us of the phenomenon observed in quite a few languages, like Japanese *barabara* 'very strong rain', Bella Coola *s-tn* 'tree' vs. *s-tntn* 'trees', Hausa *suna* 'name' vs. *sunana-ki* 'names', Tsimshian *am* 'good' vs. *am'am* 'several good', Karok *pachup* 'kiss' vs. *pachupchup* 'kiss all over' (Crystal 2003: 176-177). In most cases, as a manifestation of iconicity, reduplication expresses intensity or plurality.

The seme 'strongly' (as in *very*) added to an adjective containing 'strongly strong' results in an adjectival phrase with the meaning 'almost in the strongest degree'. Thus, *very violent* amounts to 'violent in almost the strongest degree'. However, *simply* is out of place here (*\*simply very violent*) probably due to iconicity clash because a phrase (*very* + adjective) is not a simple construction. Adjectives that do not have comparison, that cannot appear in the predicate and do not accept *very* or *quite*, as *absolute*, *chief*, *completely*, *definite*, *extreme*, *flagrant*, *real*, *total* or *utter* have 'most strongly' (= 'in the strongest degree'; cf. Greenbaum 1970: 30, where intensifying adverbs are classified according to the acceptability of *very* as a modifier). They do not collocate with any of the adverbs mentioned above (*mildly*, *slightly*, *intensely*, *simply*).

The adjective *severe* collocates with nouns such as: *affliction*, *anxiety*, *conflict*, *disturbance*, *embarrassment*, *famine*, *hardship*, *shortage*, *penalty*, *pain*. Six sememes emerge, with the following definitions: **1** <# (expression of mental event<sub>1</sub> done by/sth done by use of language by) sb<sub>1</sub> with p o w e r who w a n t s s b<sub>2</sub> to do event<sub>2</sub> # who strongly affects sb<sub>2</sub> when sb<sub>1</sub> and sb<sub>2</sub> are together to make sb<sub>2</sub> feel bad > *s. critic/judge/mother/schoolmaster; She was s. with her pupils; Courts were s. on offenders; s. expression/look/voice* (indirect); *s. criticism/discipline/penalty/rule/sentence/term* (indirect); *Their remarks were very s.* (indirect); *The punishment was severe.* (indirect) **2** <# (sth done by use of language to express) bad event-state# that is strongly strong > *s. affliction/anxiety/attack/cold/conflict/cramp/crisis/cutback/damage/difficulty/disability/disorder/distress/disturbance/*

<sup>9</sup> While *schoolmaster*, *judge*, *court*, and *critic* obviously denote somebody with power who wants another person to do something, and *mother* can be such a person typically, the sentence *The young man was severe with his father* indicates that (the young) man has contextually become a person with power. The apparent conflict is solved by considering such cases to be the cases of feature transfer (Weinreich 1966: 430). They are marked by spacing.

doubt/embarrassment/epidemic/famine/fear/handicap/hardship/illness/infection/injury/overcrowding/pain/penalty/pressure/problem/recession/restraint/setback/shock/shortage/unemployment/unease; *The threat was severe.* (indirect) **2a** <#b a d event in nature# that is strongly strong> *s. drought/frost/gale/thunderstorm/weather conditions/winter.*<sup>10</sup> **3** <#event when sb<sub>1</sub> is expected to use sb<sub>1</sub>'s energy# that is strongly strong> *s. exam/requirement/strain/test of stamina; Competition is very s.* **4** <#(state of) man-made thing<sub>1</sub># that is with strongly little number of parts such as would make thing<sub>1</sub> look good> *s. arch/building/costume/dress/furniture/shoes; Her hair/hairstyle was s.; s. beauty* (indirect). *Severe 2a* is a subdivision of *severe 2* because 'bad event in nature' is a hyponym of 'bad event', differing only in having 'bad' as a transferable feature.

The most likely candidates for synonyms are to be sought between *serious 2* and *severe 2*. Namely, 'bad event – state' of *serious 2* is repeated in *severe 2*. However, there is no full synonymy because *severe 2* has 'strongly strong' in its analysis in contrast to 'strong {and can make sth very bad}' of *serious 2*. In other instances when collocates of *serious* and *severe* coincide, as in *s. competition*, there is no synonymy due to differences in both directives and analyses. *Serious 3* chooses 'bad event with sb more than one' from its directive and imposes 'strong' as its analysis, while *severe 3* concentrates on 'event when sb<sub>1</sub> is expected to use sb<sub>1</sub>'s energy' in the directive and has 'strongly strong' as the analysis. Definitions for nouns are formulated by combining the content of directives.<sup>11</sup>

All nouns that contain certain semes even when they are expanded with some added semes, behave in the same way, i. e. they collocate with verbs and adjectives that contain these semes. E.g. 'bad and strong mental event' and 'bad and strong event when sb<sub>1</sub> touches sb<sub>2</sub>' (narrower notions) contain 'bad and strong event' (a broader notion). Therefore, nouns that have 'bad and strong event' in their definitions collocate with the first two classemes (e.g. *suffer* 'bad and strong event' + *anxiety* 'bad and strong mental event', + *blow* 'bad and strong event when sb<sub>1</sub> touches sb<sub>2</sub>').

<sup>10</sup> The collocation \* *s. fog* is not acceptable although *fog* is 'bad' because of the resulting tautological interpretation 'strong event in nature that is strong'. Namely, *fog* is not only 'bad' but also 'strong event in nature'.

<sup>11</sup> This is the complete definition of *competition* established by means of the collocational method : <good - bad and strong contest event - state with sb<sub>1</sub>, 2, (3...) more than one, when sb<sub>1</sub> is expected to use sb<sub>1</sub>'s energy wanting to come to be with more power than sb<sub>2</sub> (3...) experienced as different>. it has been formulated by combining the directives of *serious 3*, *severe 3*, and certain other lexemes that collocate with *competition*.

The content of a directive may coincide with the content of the definition of the collocating noun or may be broader, but cannot be narrower (just like a ball can drop into a hole the size of, or smaller but not bigger than, the ball). Thus, *severe* 2a with #bad event – state# avoids the company of nouns with ‘event in nature’ that do not contain ‘bad’ (*dawn, sunrise*). If a noun has a definition that is semantically narrower than a directive of another part of speech, the noun becomes collocable with the corresponding lexeme that contains the given directive. Thus, ‘bad and strong bodily event – state when sb is weak’ is the classeme (main part) of the definition of the nouns *cramp* and *epidemic*. This classeme is narrower than the directive of *severe* 3 ‘bad event – state’. Therefore *severe* is collocable with the nouns above. *Serious* 3 accepts nouns that express ‘event<sub>1</sub> when sb<sub>1</sub> uses sb<sub>1</sub>’s energy wanting to do event<sub>2</sub>’ but not those that are broader in meaning, such as ‘event<sub>1</sub> when sb wants to do event<sub>2</sub>’, like *activity* or *investigation*. In fact, these two nouns are collocates of *serious* 1, which has a directive ‘event’, broader than ‘event<sub>1</sub> when sb wants to do event<sub>2</sub>’, and automatically imposes the meaning ‘important and strong’.

There are further restrictions to collocability beyond those that are imposed by the structure of definitions. Thus, the following collocations that are predictably permissible on the basis of *serious* 3 are not acceptable for reason of tautology: \**serious battle/rebellion/revolution/war* (‘bad and strong event that is strong’).

*Attack* in *serious* (2) *attack* and *severe* (2) *attack* belong to two different sememes, and this is another factor that leads to the lack of synonymy. The former is <bad event with sb more than one when sb<sub>1</sub> affects/touches sb<sub>2</sub>, wanting to make sb<sub>2</sub> weak> (covering both physical and verbal *attack*), while the latter is <bad bodily event when sb is weak, that lasts short and is part of bad bodily state>, as in *a. of asthma/cough/pancreatitis/vertigo*.<sup>12</sup>

The adjective *deep* (<#mental event – state# that is strong>) and the derivative verb *deepen* (<#sth# makes #mental event – state# strong(er)>, either as a subject or as an object, lend the feature of strong mental event – state to the following nouns, irrespective of the presence of the seme ‘strong’ in their definitions: *admiration, ambivalence, anger, antipathy, anxiety, aversion, bitterness, commitment, crisis, conflict, depression, distress, gratitude, interest, love, mystery, study, temptation, understanding, wish*.

<sup>12</sup> To realize these definitions, additional information on collocations with the prepositions *of* (for *attack* 2), *on, against, at, and under* (for *attack* 1) has been employed.

What is it that can be used as a subject of the verb *abate*? We have found *anxiety, eagerness, energy, enthusiasm, epidemic, fighting, flood, interest, noise, nuisance, pain, pollution, price, sound, storm, tax, terror, violence* and *wind*. Some of them (*eagerness, epidemic, fighting, flood, storm* and *violence*) contain ‘strong’ by definition, which is proven by the inappropriateness of *\*mild/\*slight* as their collocates. And yet, not only *fighting/storm + abate*, but also *sound/interest/pain + abate* convey the meaning of becoming weaker (= ‘less strong’). The implication is invariantly the same: the subject (which is apparently always ‘event’) of *abate* has to be ‘strong’ because only something strong (marked sense) can become less strong (marked sense). The conclusion is that the verb *abate* (both transitive and intransitive) exerts transfer of the seme ‘strong’ from its directive to those nouns that are neutral as regards this seme (like *pain, sound* and *interest*). They acquire these attributes by means of transfer from the meaning of the verb/adjective. Of course, if a noun contains ‘weak’ (= ‘not strong’) by definition, no such transfer is possible since it would produce a paradox (such as *\*strong whisper* or *\*The whisper abated*). Besides, to complete the definition of *abate*, one would have to add the information that {bad} is its typical company. The nouns *epidemic, fighting, flood, noise, nuisance, pollution, storm* and *violence* denote something bad by definition.

The nouns *interest, energy* and *sound* are not ‘bad’ in definition, and it should be borne in mind that it is the phenomenon of an abating interest/energy/sound that is bad rather than interest/energy/sound on their own. Therefore, these nouns do not have to become ‘bad’ when coupled with *abate*.

Thus we come with the following definition for *abate*: <(#sth# makes) #{bad and} s t r o n g {mental} event – state# come to be less strong {and less bad}>.

The semantic elements ‘strongly strong’ also appear in the definition analyses of the adjectives *bitter, brutal, ferocious* and *fierce*:

*bitter* **1** <#(sth {substance taken into the body} with) taste # that is strong {and bad}> **2** <#((event by)) sb# who has a bad and strong thought – feeling, as if tasting sth bitter (1)> **3** <#bad event with sb more than one# which is strongly strong> *b. attack/battle/ blow/clash/conflict/ disagreement/division/exchanges/feud/fight/fighting// quarrel/squabble/ strike/struggle/wrangle* **4** <#(bad event<sub>1</sub> – state in) contest event<sub>2</sub> with sb more than one# which is strongly strong> *b. argument/campaign /contest/ debate/dispute/elections; b. defeat* (indirect) **5** <#(sb with/ expression of



mental event<sub>1</sub> that shows/event<sub>1</sub> that makes/event<sub>1</sub> done by) bad and strong mental {emotion} event<sub>2</sub> – state # that is strongly strong> *b. accusation/anger/anguish/controversy/denunciation/disappointment/enmity/hatred/hostility /opposition/regret/reproach/resentment; b. enemy/opponent* (indirect); *b. criticism /cynicism/irony/laugh/sarcasm/tear/word* (indirect); *b. divorce/parting* (indirect); *b. lesson/memory* (indirect) **6** #weather (situation)# that is bad and strongly cold *b. chill/cold/weather/wind/winter; It is b. out today.*

*brutal 1* <#(living thing that does) b a d event {behaviour}# that is strongly bad (and strongly strong)> *b. attack/atrocity/beating/death/killing/lie/murder/plague/punishment/rape/treatment/war; The security guards are notoriously b.* (indirect connection) **2** <#b a d event in nature# that is strongly bad and strongly strong> *b. morning light/sun/winter.*

The noun collocates *treatment*, (morning) *light* and (afternoon) *sun*, which do not contain 'bad' in their definitions, prove that 'bad' is here a transferable seme.

*ferocious 1* <#(thing<sub>1</sub> that makes/state made by) bad and strong event<sub>1</sub> with more than one living thing<sub>2</sub># that is strongly bad and strongly strong (and can make a bad event<sub>2</sub> \_ state)> *f. assault/attack/barking/battle/campaign/criticism/cruelty/fighting/onslaught/riot/war; f. animal/beast/dagger/dog/knife* (indirect); *f. atmosphere of competition/ expression/temper* (indirect) **2** <#(expression of) bad and strong state# that is strongly bad and strongly strong (and can make a very bad event)> *f. determination/opposition/punishment; f. expression* (indirect) **3** <#event<sub>1</sub> in nature# that is strongly strong (and can make a bad event<sub>2</sub>)> *f. climate/storm; The heat is just f.*

*fierce 1* <#(living thing that can move and feels/expression that shows) {bad and} strong emotion state# that is {strongly bad and} strongly strong> *f. anger/desire/determination/independence/passion/pride/temper; f. criticism/expression/eyes/frown/look/roar/whisper* (indirect); *f. dog* (indirect) **2** <#(sb who does) {bad and} strong event – state with sb more than one# that is strongly bad and strongly strong> *f. assault/attack/battle/campaign/clash/combat/competition/conflict/controversy/debate/denunciation/fight/fighting/loyalty/opposition/resistance/rivalry/row/struggle/war; f. competitor/critic/opponent/rival/warrior* (indirect) **3** <#(amount of) heat# that is strongly strong> *f. blaze/fire/heat; f. intensity* (indirect) **4** <#(weather caused by) air that moves# that is strongly strong> *f. blizzard/storm/wind; f. weather* (indirect).

*Temper, desire, loyalty and independence* are not ‘bad’ by definition and need not become contextually ‘bad’ when joined to *fierce*. These facts account for the typical {bad}. *Temper*, as a collocate of *fierce* 1, is not ‘strong’ by definition, and so are not *eyes, expression, frown, look, whisper, and dog* in indirect connection, which means that here ‘strong’ is a transferable feature.

The following nouns denote a bad and typically strong event: *assault, attack* (= ‘violence’), *backlash, bankruptcy, cancer, defeat, depression, despair, dilemma, disaster, famine, fear, frost, malaria, sin, stress, temptation, panic, pollution, storm, suffering, tempest, temptation, threat, unemployment, and war*. The classeme ‘strong state’ is manifested in: *ambition, anguish, backlash, cancer, defeat, despair, distress, emergency, excitement, grief, haste, loss, panic, rage, speed* (marked sense), *terror and wrath*. These nouns can, more or less felicitously, in varied contexts, figure as objects of the verbs *suffer* (<experience #{bad}<sup>13</sup> and {strong} event – state#>) and *absorb* (<make #{bad} and {strong} event – state# be less – not bad> as in *suffer/absorb effects of...*). Both these verbs have the potential of activating the seme ‘bad’ and ‘strong’ in the following noun when it contains ‘strong’ or ‘bad’ as a typical feature. Also, the nouns above collocate with the adjectives *intense, devastating* and *uncontrollable*. The latter two contain transferable ‘bad’, as manifested by *devastating consequence/effect*, where the nouns contain {bad}.

The verb *succumb* can be defined as <#sb# comes to be strongly (*sic!*; = very) weak when affected by a {bad and} strong event>. Depending on the context, any abstract noun that means ‘event by which sb is affected’ can take the position of an indirect object (after *to*), although certain of them, those that are ‘bad and strong’ by definition are the best candidates. In the sentence *His health was so impaired that he succumbed to a banal cold* the lexeme *cold* receives the feature ‘strong’. For a moment it may seem that *cold* has not become ‘strong’ because a *banal cold* stresses the idea of ordinariness and lack of importance. But when we are reminded that strength is a relative notion (A strong mouse is still weaker than a weak elephant), we have to conclude that the sememe ‘strong’ is liable to changeable interpretation depending on the context and that it has no

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<sup>13</sup> When the typical alloseme of a noun is activated under the influence of a directive, we shall call such transfer *allo-transfer*. Thus {bad} (typical feature) in the definition of the noun *consequence* is activated in the collocation *terrible consequence* due to the meaning of *terrible*, which is <#b a d event# that is strongly bad>.

absolute value. And yet, since it preserves its stability in noun definitions, we have grounds to believe that in the sentence above *cold* has really become 'strong'. The strength of pneumonia and persuasion cannot be on the same footing in *When she was 54 she succumbed to pneumonia* and in *Father succumbed to our persuasion*. But the latter sentence conveys the idea that persuasion was so strong that father had to change his decision, and linguistically they are the same, and they are both contextually 'strong'.

The adjective *blind* meaning in one of its sememes 'that makes sb not able to know sth', requires nouns that denote a strong mental state: *b. acceptance/allegiance/ambition/aspiration/belief/commitment/delight/dream/faith/haste/ideal/loyalty/obedience/plan/prejudice/trust. The critic was blind in his attack* (indirect connection).

There is a group of nouns that share the denotation of interpersonal, typically mass, disorder, i.e. 'bad {and strong} event – state with {a lot of} sb more than one in disorder': *anarchy/attack/battle/chaos/commotion/conflict/confusion* (not 'strong' in definition; cf. *slight/mild confusion/crisis/disorder/disturbance/epidemic/hell/hostilities/panic/plague/rebellion/revolt/revolution/riot/terrorism/trouble/unrest/uprising/violence/war*. As objects, they agree with *control*, *quell*, and *foment*<sup>14</sup>, and as subjects with *break out*, and with the adjectives *severe* 2, *fierce* 2 and *violent* 1<sup>15</sup> because these adjectives contain directives broader than the meaning of the nouns. The directive of *rage* has #bad and strong event with a lot of sb more than one#, where 'a lot of sb more than one' is transferable to the collocating noun, as in *murder rages*.

<sup>14</sup> *Quell* is without 'disorder' (thus allowing *quell disagreement /controversy/inflation*) and also collocates with 'bad emotion state' (*quell anxiety/doubt/fear/nervousness /unease*), whereas *foment* is slightly narrower in meaning since it requires 'a lot of' as a compulsory seme.

<sup>15</sup> Here is the complete portrait of the adjective *violent* : 1 # (sth done with/state of) b a d and strong event | with sb more than one-when sb<sub>1</sub> touches sb<sub>2</sub># that is strongly bad-strong v. *argument/assault/attack/battle/behaviour/blow/clash/conduct/conflict/confrontation/crime/disorder/disturbance/encounter/hammering/protest/punch/quarrel/rage/reaction/rebellion/regime/riot/row/stab/struggle/tendency/uprising/war/whipping*; v. *scene/film/game/temper* (indirect) 2 #b a d weather# that is strongly bad and strong v. *storm/ weather* 3 #bad and strong bodily event-state# that is strongly bad-strong v. *death/diarrhea/fit/cramp/pain* 4 #b a d and strong emotion# that is strongly bad-strong v. *anger/emotion/grief/hatred/impulse/passion /urge* 5 #colour# that is strongly strong v. *purple*.

*Violent* 1 and *fierce* 2 are in contradiction with *shuffle*, *skirmish*, and *squabble*, and therefore cannot collocate with them, as well as \**serious skirmish/scuffle* because these collocations would lead to the paradox ‘strong that is not strong’. There are further restrictions in this group: *fierce* 2 and *severe* 2 do not agree with ‘strong’ in the collocating nouns *anarchy/battle/chaos/rebellion/revolution/war*, due to tautology ‘{bad} and strongly strong state that is strongly bad and strongly strong’.

The classeme ‘bad and strong mental event – state with {a lot of }sb more than one who use language’ (the hyponym of ‘bad and strong event – state with {a lot of }sb more than one’) is present in: *argument*, *conflict*, *controversy*, *cynicism*, *debate*, *disagreement*, *discussion*, *dispute*, *feud*, *misunderstanding*, *opposition*, *quarrel*, *question*, *reproach*, *row*, *words* (‘angry talk’), *wrangle*, but not *confusion* or *trouble* as agents of these events/states do not use language invariably. The compatible verbs are *dodge*, *realize*, *resolve*, *settle*, and *skirt* (requiring these nouns as object), while *knotty* is a collocating adjective.

Why is it that desires are normally said to be overcome or overwhelming, but not wishes? Because the verb *overcome* and the adjective *overwhelming* require nouns that denote strong emotion or some other strong mental event of sb who wants to do sth, and, unlike *wish*, *desire* is invariably ‘strong’. This difference is recognized by most dictionaries. All nouns that denote such a class of strong mental events – states occur in the frame *burn with \_\_\_\_\_*, as in *I was burning with addiction/affection/ambition/aspiration/ardour/curiosity/desire/hope/ideal/love/rage/tenderness*. Still, this does not mean that each of these nouns contains the same ‘strong’ by definition. This is the case only with *addiction*, *love*, *desire*, *ideal* and *rage*, proven by the fact that they do not collocate with *slight* or *mild*. Others receive ‘strong’ by transfer from the verbs *overcome* and *burn* and the adjective *overwhelming*. For *wish* to be used in this frame, some contextually induced reinforcement would be necessary, such as *He was burning with a fervent wish to kiss her*.

There are verbs that have ‘bad and strong mental event – state’ as an object, like *clarify*, *clear up*, *dispel*, *dodge*, *raise*, *relieve*, *resolve*, *settle*. They agree with nouns such as *crisis*, *difficulty*, *dilemma*, *disagreement*,

*dispute, doubt, problem, question, trouble*, most of which receive 'strong' contextually.

The seme 'strong' also occurs in the verb *impose*<sup>16</sup> (often followed by the preposition *on*), but in a slightly different way. The subject of this verb is 'strong' by transfer, as it always refers to a person who has some kind of power or influence (cf. Hlebec 2007: 88-89) unless this is explicitly negated, as in *He could not impose his will on her*. The energy of 'strong' in the subject radiates and is carried to the object, so that the object nouns become semantically strong to some extent: '{bad and} strong event<sub>1</sub> when sb<sub>1</sub> wants sb<sub>2</sub> (not) to do event<sub>2</sub>'. Nouns that occur as objects of *impose* include: *ban, blockade, boycott, burden, censorship, condition, constraint, control, criterion, curfew, cut, deadline, demand, discipline, duty, embargo, state of emergency, excise, fee, fine, injunction, law, limit, limitation, measure, morality, moratorium, obligation, order, penalty, punishment, quota, regime, regulation, religion, requirement, restraint, restriction, rule, sanction, sentence, strain, suspension, tax, term, treaty, tyranny, value, veto, will*.

For their objects, the verbs *lift, break, obey* and *defy* require nouns with 'strong event<sub>1</sub> when sb<sub>1</sub> wants sb<sub>2</sub> (not) to do event<sub>2</sub>' in the directive, i.e. with non-transferable 'strong'. Therefore, not all of the nouns above will be collocable (e.g. *fee* and *religion* are out of place).

Another group of mental event nouns agree with the preposition *over* in causative meaning: *agony, alarm, anger, anguish, annoyance, bitterness, brooding, concern, confusion, contrition, controversy, delay, delight, despair, depression, desperation, disagreement, disappointment, discontent, dismay, displeasure, distress, doubt, embarrassment, emotion, enthusiasm, envy, excitement, fear, frustration, fury, glee, gloom, grief, impulse, inhibition, investigation, jealousy, jubilation, lament, misconception, misery, misgivings, panic, passion, pleasure, problem, rage, regret, rejoicing, reserve, sadness, suffering (rarely), surprise, suspicion, temper, tension, mental torture, unease, wonder, worry*. They all denote a good/{bad and strong} mental {emotion} event – state. Verbs that use similar classemes for a directive are *melt* <#{bad and} strong mental event – state# comes to be not strong any longer> and *quell* <#sth# makes #{bad and strong} mental event – state# be not (strong any longer)>.

<sup>16</sup> There are two more sememes of *impose*, one with the object directive #state with sb more than one#, as in *impose peace/one's presence*, and the other, with #thought#, as in *impose belief, idea, view*.

Another group of nouns followed by the causative *over* denote a conflict, i.e. ‘bad and strong event – state with sb more than one’: *argument, battle, clash, conflict, controversy, crisis, dispute, debate, difference, disagreement, discussion, disorder, feud, fight, fuss, issue, misunderstanding, problem, protest, quarrel, rift, row, scandal, law-suit, split, struggle, tension, trouble, war, wrangle*.<sup>17</sup>

The same collocational reactance of nouns denoting bad and strong emotions and conflicts comes as something quite natural, since conflicts metonymically imply bad and strong emotions.

Only nouns classified as ‘{bad and} strong emotion state – thought’ can be inserted into the frame *abandon oneself to* \_\_\_\_\_ (*abandon oneself to despair/delight/grief/impulse/passion/pleasure*). Since these nouns come under ‘strong event’, *overcome* and *overwhelm* also combine with them as objects. Another verb that requires these nouns as objects is *generate*. Unlike *abandon oneself to*, *generate* does not transfer ‘strong’ but accepts as collocates nouns without ‘strong’ as a distinctive feature on condition that this feature is contextually induced, as in *generate loud laughter*.

We can go further and look for nouns that denote ‘strong emotion state’. So, the deviation of \**I feel mild/slight + agony/allegiance/amazement/anger/anguish/ardour/avarice/aversion/bewilderment/despair/distress/enmity/enthusiasm/frenzy/grief/hatred/jubilation/love/panic/suffering/wrath (+ in my heart)* proves that *agony, amazement, bewilderment* etc. denote invariantly strong emotional states.

The classeme ‘bad and strong event when sb<sub>1</sub> touches sb<sub>2</sub>’ can be found in: *administer/apply/deliver/dodge/fetch/hit/land/repel; hefty/savage/sound + beating/blow/hit/punch/slap/stab*.

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<sup>17</sup> As a common denominator for this type of lexemes collocating with *over*, Bugarski identifies a wide range of emotions and related activities, especially antagonistic ones (Bugarski 1996: 69). In Rasulić (2004: 296-302) collocates of metaphorical *over* have been classified as containing ‘sorrow’, ‘worry/anxiety’, ‘surprise’, ‘discontent’, ‘fury/anger’, ‘gloating’, ‘joy/excitement’, ‘conflict’ and ‘breach of relationship’. For our purposes, Bugarski’s comment is too vague, while Rasulić’s classification is over-specified. These studies excel in other merits suitable for their objectives.

‘Good’ nouns that collocate with *over*, i.e. *enthusiasm, excitement, rejoicing, and jubilation*, give ground for suspicion that even good emotions when they are strong, are substantially considered to be bad by most speakers of English because they imply the lack of control of behaviour (cf. Hlebec 2011a).

The classeme 'bad and strong hot emotion state' occurs in the directives of the verbs *quell* (object), *boil/fume/seethe/smoulder with* (indirect object), and the adjective *burning*. These verbs and the adjective are connected, or exert transfer of 'strong', to the nouns *anger, anguish, anxiety, determination, frustration, hatred, impatience, indignation, passion, rage, resentment, shock*.

The classeme 'bad and strong emotion felt by sb who does not know sth' occurs in the verb *resolve* and the adjective *false* (both with transfer of 'bad and strong') in collocation with the nouns *belief, fear, doubt, gloom, misconception, myth, suspicion, stereotype*.

The classeme 'strong emotions that last for a short time' collocates with the indirect objects of the preposition *to*, (cf. *to his amazement/surprise*, but not *\*to his envy/wrath*).

The seme 'strong' occurs in the analyses of the following verbs: *bolster/boost/raise* <#sth# makes #spirit# stronger>, as in *b./r. confidence/courage/ego/image/morale/spirit*; *lift* <#sb<sub>1</sub> with power# makes #event – state when sb<sub>1</sub> wants sb<sub>2</sub> (not) to do sth# not strong any longer>, *break* <#sb<sub>1</sub># makes #s t r o n g event – state when sb<sub>2</sub> with power wants sb<sub>1</sub> (not) to do sth# not strong any longer> as in *break/lift + ban/blockade/curfew/martial law/restriction/rule*.

Verbs that have 'living thing' as an object, like *talk, press, whip*, combine with the preposition *into* (or its opposite *out of*) on the basis of the seme 'make strongly', as in *talk sb into buying, press sb into service, whip sb into obedience, work oneself into a frenzy, frighten sb into agreeing*.

### 3. Conclusion

By combining content of directives in verbs and adjectives, fairly reliable noun definitions can be reached, such as enable the prediction of, and provide directions for, natural collocations.

There are striking similarities among definitions (especially analyses) of various sememes of a single lexeme. There is a plethora of complex nesting directives, like 'bad event', 'bad and strong event', 'bad and strong mental event', 'bad and strong event with sb more than one', 'bad and strong event with a lot of sb more than one', 'bad and strong event with a lot of sb more than one in disorder', 'bad and strong mental event with sb more than one who use language', which makes their identification difficult but

still manageable. However, cryptotypes (i.e. simple elements of complex directives/classemes) are recurrent and complex directives often nest in an ordered hyponymous manner. This reminds us of the phonological system in which a limited number of distinctive features combine to give a greater number of phonemes, while a limited number of phonemes get into combinations to form a much larger number of morphemes according to phonotactic rules. Notwithstanding the observed tendency towards nesting there are no instances of hyponymy, such as #bad event# and #bad and strong event# across different sememes of a single lexeme. Actually, such cases are ruled out by the present method because their existence would indicate that the analysis was wrong.

There seems to be an association of 'strong' with the ideas of multitude ('a lot of'), the meaning of power in society, importance, truth, the good and the bad, as shown in the polysemy of *serious* and *severe*.

Combinatory tendencies that apply to less complex classemes apply automatically to more complex classemes that are the expansions of the former because the latter are narrower in meaning. Thus, *crisis* is collocable with *serious* 2 ('bad event') and automatically with 'bad and strong event with a lot of sb more than one' of *rage*.

Here is the list of all cryptotypes (52) that have emerged in our definitions with 'strong': 'air, a lot, amount, bad, behaviour, be (is), bodily, body, colour, contest, disorder, do, energy, event, expected, expression, feel, feeling, good, heat, hot, know, language, less, living, long, make, man-made, mental, more, move, nature, not, one, power, sb, show, situation, spirit, state, sth, strong, substance, taken, taste, thing, thought, touch, use, want, weak, weather'. Some among them show relationship of synonymy ('heat' = 'hot', 'bodily' = ? 'body', 'feel' = ? 'feeling') and hyponymy. As shown by the collocational method ('feeling' reacts with *feel* ~, 'thought' with ~ *that*), mental events include feeling and thoughts, while feelings are either bodily sensations or emotions. 'Better' is analyzable as 'more' + 'good'. Nouns such as *disagreement*, *question* and *headache* ('problem') indicate that the category of mental events covers not only emotions (\**I feel disagreement/headaches/question*) and thoughts (\**the disagreement/headaches/question that...*), but also some other mind events. Thus, cryptotypes are by definition always simple in form, but their content can be complex and reducible to other cryptotypes, which in turn are most often reducible to semantic atoms.



Unlike semantic markers of generative semantics, our *classemes* sharply differ from distinguishers because their content is determined by the content of directives. In this way the notion of distinguisher has been salvaged.

The collocational method enables insight into matters that surpass linguistics proper and encroach neurolinguistics. We have reason to suspect that the cryptotype 'strong' may have its counterpart in relatively intense electric current in the brain because this basic seme (often) exerts influence on the neighbouring words and is transferred to them.

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## СЕМА 'STRONG' У ЛЕКСИКОЛОШКИМ ДЕФИНИЦИЈАМА

### Сажетак

У чланку је дата подробна анализа једног изабраног дела енглеских лексема које садрже сему 'strong', а на основу колокацијске методе онако како ју је осмислио и разрадио аутор у својим ранијим радовима. Овај приступ указује на принцип по коме језик стварно функционише, као и на то да не постоји јасна граница између језика као система и језика као процеса, нити између лексике и синтаксе.

**Кључне речи:** семантичка дефиниција, колокација, сема, семема, класема, криптотип