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ANALYSING COGNITIVE STRUCTURES: THE LEXICAL FRAME OF PAIN

Abstract: The discussion aims at sketching out the cognitive frame of PAIN and showing the interrelations between its elements. The semantic analysis of the elements of the frame shall be conducted on the basis of English lexical units.

Key words: *pain*, NSM, semantic analysis, frame of PAIN.

Introduction

The present discussion is aimed at an illustration of the structure of the cognitive model of a phenomenon present in daily human life. Much as it is despised and avoided, pain is, unfortunately, one of the givens of human existence (Goddard and Wierzbicka 2014). It is present in various forms and diverse intensities, however, as an entirely subjective experience it can only be assessed by the experiencer and is usually communicated to others by means of verbal expression. However, in the case of high intensity, certain non-verbal forms of communication can reveal its presence. What is meant here is the involuntary application of particular facial expressions, grimaces or body positions, such as squatting or bending, which might indicate this unwelcome health condition. This claim is supported by Rowbotham et al. (2014:244) who focus on *the importance of effective pain communication within both medical and everyday settings, and the difficulties that pain sufferers face in verbalising their pain experience*. Inevitably, certain support from *co-speech gestures* is visible in communicating particular pain-related messages and sensory description. The conducted research study proved that verbal messages

were in great majority supported by gestures, half of which represented pain sensation. Moreover, for over 40% of the instances *gestures represented pain sensation information that was not contained in speech, contributing additional, complementary¹ information to the pain sensation message.*

Analysing pain

Pain, as noted by Fabbro and Crescentini (2014:540), *is an experience that none of us would like to have but that each one of us is destined to experience in our lives.* Additionally, it is stated that pain is

a strong, burning experience. When pain is present the whole mind is involved, when it is absent the thought recalls the threat. The experience of pain, although strong and compelling, remains in its depth problematic and complex.

Pain is considered to be a response² to nociceptive stimuli, *often the driving force leading individuals to seek treatment, when they ache, hurt, and/or suffer³* (Simons et al. 2014:62). Therefore, *escape or avoidance from painful or potentially painful stimulus is a normal process (i.e., even rapid withdrawal from a noxious stimuli (sic)) for acute threats* (Simons et al. 2014:64).

Wierzbicka (2012:29) claims that pain is not a human universal, despite its common presence in human life. *The reason is that this universal human phenomenon is differently thought of in different languages, and ways of thinking about it are reflected in the meanings of words with which speakers of different languages talk about it.* Some of the evidence is provided through the analysis of French *douleur* and English *pain* in the following words:

[...] douleur⁴ can embrace a person's emotional and physical suffering in a single, undifferentiated whole, whereas the English pain⁵ is more focused on physical suffering; in contexts where the suffering is seen as engulfing the whole person, body and soul, the word pain⁶ is not commonly used.

Goddard and Ye (2014: 132) share this opinion and state:

extensive cross-linguistic research has demonstrated that there are no precise lexical semantic universals in the domain of emotion, and that the specific meanings

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of the emotion words of any language are often heavily “culturally coloured”. [...] This means that English-specific words like happiness⁷ and pain⁸ can have no special claim to epistemological priority, and that using them even as rough-and-ready labels runs a risk of introducing a biased discourse that is centred on the Anglo cultural perspective.

It is important to add that, as noted by Goddard and Wierzbicka (2014:127), *the language used to describe pain is subject to significant cross-cultural variation, which frequently results in a lack of understanding as well as confusion when people from diverse cultural and linguistic backgrounds are involved in communication. Different ways of talking about pain, linked with different languages and cultures, colour the way people of different linguistic and cultural backgrounds speak about and express their pain when they speak English.*

Another essential point that is raised in this connection is that diverse cultural communities apply *different cultural scripts for expressing, and talking about, pain* (Goddard and Wierzbicka 2014:128). The example of a healthcare practitioner is evoked to highlight the significance of proper verbal description of a particular health condition. Mary Narayan, a *trans-cultural nurse consultant in Vienna* stresses the fact that *people from different cultures conceptualise and describe pain using different cognitive frameworks. Being asked to characterise pain using an unfamiliar descriptive context may result in inadequate pain control* (2010:41).

In terms of the universal language applied to the interpretation of lexical meaning, i.e. the Natural Semantic Metalanguage, English *pain* can be interpreted by means of the following explication (Goddard and Wierzbicka 2014:133):

*She felt pain*⁹.

a. she felt something bad at that time

b. like someone can feel when it is like this:

c. something bad is happening to a part of this someone's body

d. this someone feels something bad in this part of the body because of this

e. this someone can't not think like this at this time: “I don't want this”

Clearly, the primary message conveyed is that of ‘feeling something bad in one's body’ as well as the fact that this sensation is unwelcome and the experiencer would like to avoid it or dispose of it.

The concept expressed through French *douleur* is rendered by means of the following NSM formula (Wierzbicka 2012:37):

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⁹ The underline has been introduced here to represent the original italicised form

*She felt douleur*¹⁰

a. *she felt something bad at that time*

b. *like someone can feel when it is like this:*

c. *something bad is happening to this someone's body for some time*

d. *because of this, this someone feels something very bad in the body for some time*

e. *this someone can't not think like this at this time: "I don't want to feel like this"*

As can be observed above, the explication does not differentiate between the senses, i.e. emotional and physical¹¹. Nevertheless, *the prototype of the experience is physical, but unlike the physical prototype of pain*¹², it [i.e. douleur]¹³ refers to the body as a whole, and not just part of the body (Wierzbicka 2012:37). French *douleur* seems to address the body as a whole, not just its part – the latter is more representative of the explication of *pain*.

It has to be noted that in Polish the lexical items designating the concept in question is *ból* and, according to Wierzbicka (2012) as well as Goddard and Wierzbicka (2014), it is closer in use to the French *douleur* rather than the English *pain*. The Polish term, conceptually, is in an intermediate position between *pain* and *douleur*: it is *more akin to emotions* than the former, but *evokes less intensity* than the latter. Goddard and Wierzbicka (2014:152) state additionally that another Polish term *męka*, referring to a *very great pain*, would be a more natural counterpart for the French term; in English *agony* would need to be employed as the translation equivalent.

To refer to the location of a pain in Polish the verb *boli* is commonly applied; however, there are also particular set phrases referring to certain types of localised pain. Therefore, the explication of Polish *ból* (as a free-standing noun, not an element of set phrases) assumes the following form (Goddard and Wierzbicka 2014:152):

*She felt ból*¹⁴

a. *she felt something bad at that time*

b. *like someone can feel when it is like this:*

c. *something bad is happening to this someone's body*

d. *this someone feels something bad in the body because of this*

e. *this someone can't not think like this at this time: "I don't want this"*

The reference to time and the duration of experience is missing from the explication for the reason that *ból* can be momentary, while the duration is accentuated in the meaning of *męka*.

¹⁰ The underline has been introduced here to represent the original italicised form

¹¹ Compare: *OED* definition: *the sensation which one feels when hurt (in body or mind)*; no distinction is made between the physical or emotional condition.

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¹³ The underline has been introduced here to represent the original italicised form

¹⁴ The underline has been introduced here to represent the original italicised form

Due to size limitation only the outline of the frame of PAIN as lexicalised in English shall be provided in the following discussion.

Discussing the frame of PAIN

The lexical area under consideration is a wide-ranging language structure. Specialist sources consider a frame to be a central descriptive category in cognitive semantics, a complex construct which allows the operation of large knowledge structures¹⁵. The frame in question can include a number of different scripts, all of which will contain various sequences of events, such as among others: ‘GOING TO THE DOCTOR’ – to get the source of pain diagnosed and receive treatment; ‘BEING HOSPITALISED’ – to relieve pain and restore healthy condition, and many others.

Pain is a word relating to a physical sensation of something bad. Wierzbicka (2014) points out that not all languages have a word corresponding to it, yet most have a lexical item which refers to ‘feeling something bad in one’s body’. Pain is clearly an unwelcome feeling with varying degrees of intensity and diverse locations. Prototypically, pain refers to a physical experience, nevertheless, it also relates to malignant psychic conditions.

While analysing the frame of PAIN one has to consider diverse pain-related concepts embedded in the discussed cognitive construct, including the type of pain¹⁶, its intensity, duration, occurrence, location, the ways of experiencing it, enduring, reacting to and avoiding pain, forms of pain relief, and many other aspects. Additionally, steps taken to prevent bouts of pain can be addressed.

Pain, as defined in the *Oxford English Dictionary* v. 4.0.0.2 (henceforth *OED*) is: *a primary condition of sensation or consciousness, the opposite of pleasure; the sensation which one feels when hurt (in body or mind); suffering, distress.*

While discussing the **intensity of pain** the following collocations with the noun *pain* can be noted: *acute, agonising, awful, excruciating, extreme, great, intense, severe, sharp, terrible, unbearable; burning, searing, shooting, stabbing, throbbing; dull, little, slight* (*OCDSE* 2002:548).

Duration of pain is described by means of the following adjectives: *chronic, constant, nagging, persistent*; while pain **frequency or occurrence** may be, among others: *sudden, intermittent* (*OCDSE* 2002:548), etc.

To suggest the **location** of pain, language users can resort to the following adjectives: *physical; emotional; abdominal, back, chest, leg, muscle, shoulder,*

¹⁵ Compare: Cruse (1986), Taylor (1989); Ungerer and Schmid (1996); Burkhanov (1999).

¹⁶ Synonyms: *pain, ache, pang, smart, stitch, throe, twinge*. These nouns denote a sensation of severe physical discomfort: *abdominal pain; aches in my leg; the pangs of a cramped muscle; aspirin that alleviated the smart; a stitch in my side; the throes of dying; a twinge of arthritis* (*AHDEL* 2000:1263).

stomach (OCDSE 2002:548) or expressions such as *pain in the leg*, *pain in the neck*. Obviously, other phrases that do not make use of the lexeme ‘pain’ are abundant in English, for instance: *headache*, *stomach ache*, *backache*, *toothache*, *earache*, etc.

Of the various **types of pain**, where ‘pain’ is an element of a phrase, the following can be quoted: *growing pains*, *labour pain*, *period pain* (OCDSE 2002:548).

Once encountered, pain has to be relieved to ensure comfort and proper functioning. Diverse **forms of relieving pain** can be suggested: *visiting a doctor*, *taking pills and medication*, *taking painkillers*, *undergoing rehabilitation*, *being operated on*, *getting a massage*, *undergoing treatment at outpatient’s*, *getting an injection*, *dressing a wound*, *going to the dentist*, *acupuncture*, *suicide attempts*¹⁷. This list is certainly not exhaustive, as many more instances could be provided, depending on the type, form and duration of pain.

Various other elements which pertain to the frame are listed below:

Result of pain: (verb + *pain*) *to cry in pain*, *to cry out in pain*, *to groan with pain*, *to scream with pain*; *to be contorted with*, *to contort in pain* (OCDSE 2002:548).

Experiencing pain: (verb + *pain*) *to be in*, *to be racked with*, *to experience*, *to feel*, *to get*, *to go through*, *to have*, *to suffer (from)*, *to bear*; *to endure*, (OCDSE 2002:548); *to be pained*, *to look pained*, *to seem pained*, *to sound pained* (OCDSE 2002:548).

Enduring pain: (verb + *pain*) *to bear*, *to endure*, *to put up with*, *to stand*, *to take* (OCDSE 2002:548).

Overcoming pain: (verb + *pain*) *to alleviate*, *to control*, *to deaden*, *to do something for*; *to dull*, *to ease*, *to help*, *to kill*, *to relieve*, *to stop*, *to get over*; *to spare somebody pain* (OCDSE 2002:548).

Causing pain: (verb + *pain*) *to cause*, *to give somebody*, *to inflict* (OCDSE 2002:548).

Appearance of pain: (*pain* + verb) *to begin*, *to come*, *to shoot through/up*, *to grow stronger*, *to increase*, *to intensify*; *to come back*, *to return*; (verb + *pain*) *to increase*, *to make worse* (OCDSE 2002:548).

Disappearance of pain: (*pain* + verb) *to disappear*, *to go*, *to stop*, *to wear off* (OCDSE 2002:548).

The language used in daily communication is also filled with numerous metaphors of pain and suffering. They either include the lexeme *pain* itself or

¹⁷ According to Stenager et al. (2014), there is high incidence of suicide attempts among chronic pain patients; the numbers are much lower in the general population, which seems to point to suicidal behaviour as a form of pain relief in the case of chronic pain. Simons et al. (2014:62) state that *as pain becomes chronic, there is a tendency to be different – one’s psychological state of being (and mind) is altered*. This might explain the abnormal behavior and suicide attempts of chronic pain patients.

refer to the concept of pain; hence by way of extension they constitute elements of the frame under consideration. Some examples shall be introduced and briefly discussed in the following.

To grit one's teeth (MS 1992:137) is interpreted as *to get ready to suffer pain*; this expression implies endurance and forecasts suffering.

The phrase **growing pains** meant as *problems encountered by virtue of expansion* (MS 1992:138), or *problems that arise in beginning or enlarging an enterprise* (AHDI 1997:443), relies on the similarity with the physical sensation of aching limbs and joints experienced by young individuals who grow rapidly. Hence, stretching the size of a company is compared to a growing organism, a process frequently accompanied by effort and discomfort.

A stiff upper lip (MS 1992:175) is *obstinate courage in the face of pain or adversity*. Hence, **to keep a stiff upper lip** (AHDI 1997:574) means to *show courage in the face of pain or adversity*. Clearly, it is the application of a facial expression which attempts to conceal the fact that one is experiencing problems and is apparently unaffected by some difficulty or demands that may cause suffering.

To be a pain in the neck (MS 1992: 190) or **a pain in the ass/butt** (AHDI 1997:792) is a metaphorical expression representing the meaning *to be an unpleasant person or to be a nuisance*. Any pain in any part of a body is definitely unwelcome and problematic; hence any such allusion to a person clearly indicates they are best avoided.

(To be) at pains or **to take pains** (AHDI 1997:53) relates to a situation in which extra effort is needed to accomplish a task: *make a special effort or take extra trouble to do something*. Apparently, no physical harm is done, thus no real suffering or pain is inflicted.

Bad trip (AHDI 1997:68) refers to pain through the description of the experience, i.e. *a frightening or otherwise very unpleasant experience*. The phrase comes from the mid-1900s, and it meant *experiencing hallucinations, pain, or other trouble effects from taking a drug, esp. LSD*. Later on, the expression extended its range of meaning to cover other instances of *extremely unpleasant experience*.

To bite the bullet represents the meaning *to behave bravely or stoically when facing pain or a difficult situation* (AHDI 1997:103); *to meet or confront a difficult or painful situation directly and courageously* (MWDA 1999:78). The phrase is clearly of military origin and designates an attitude of bravery and endurance.

To break someone's heart (AHDI 1997:129) is an expression used to refer to *causing severe emotional pain or grief*. Evidently, this expression relates to the non-physical negative emotional state embodied by emotional pain.

To carry a/the torch for someone (AHDI 1997:171) denotes emotional pain caused by unrequited feelings; it means *to continue to feel the pain of unreciprocated love for someone*. The *torch* in the expression *alludes to the heat of love or passion*.

While discussing the effects of drinking, a person who is said to *feel no pain* (AHDI 1997:332) is meant as *intoxicated*. The expression alludes to being oblivious to pain because of the consumption of a large amount of liquor. Drunken people are often thought of as being less likely to hurt themselves as a result of easily losing and regaining balance. Furthermore, once hurt, they are not susceptible to pain, as the amount of intoxicant in the blood cripples the neural transmission of information of all sorts (whether of sensory information or of inflicted/experienced pain).

When something happens *for one's pains* (AHDI 1997:360) it is so *in return for the trouble one has taken*, additionally implying that *the return was not appropriate to the effort made*.

If a person or a group of people are *in the throes* (AHDI 1997:556) where the noun *throe* designates *a severe pang or spasm of pain*, they are *in the midst of, especially of a difficult struggle*.

To kick up (AHDI 1997:584) means to *malfunction, cause trouble or pain*. The straightforward reference to pain can easily be interpreted as the force applied to the leg movement while kicking an object which, in turn, absorbs the effect of the shock, hence experiencing the unpleasant sensation.

People are often exposed to unfavourable conditions. On some occasions an individual has to *learn to live with something* (AHDI 1997:608) i.e. he/she has to *get used to or accustom oneself to something that is painful, annoying, or unpleasant*.

No pain, no gain (AHDI 1997:713) is understood as *suffering is needed to make progress*, and describes the common fact of life that for development to take place some effort has to be expended.

Pound of flesh (WMDA 1999:434) designates *infliction to the exact letter of the law, without mercy, of a punishment that is cruelly painful*.

Primal scream (WMDA 1999:436) *A gut-wrenching, infantile, and therapeutic scream of emotional release. The term comes from a type of psychotherapy known as primal scream therapy in which the patient is brought to focus on repressed pain from infancy or childhood. The primal scream is made when a patient makes contact with the primal trauma thought to lie at the core of neurosis. In popular use, it refers to a deeply felt cry of rage or pain.*

Various idioms and other phrases are inevitably evoked and triggered by the concept 'pain': however, owing to space restrictions they are not addressed here. Also, a detailed discussion of synonymous expressions of *pain* or *suffering* as well as types of diseases has not been taken up.

Concluding remarks

The lexicographical sources and corpus data analysed and referred to in the foregoing discussion, as well as those consulted but not directly quoted, show that the experience of pain is largely lexicalised with reference to a physical sensation

that is unwelcome in nature. It is worthy of note, that by far the largest group of expressions relate directly or indirectly to physical pain. Nevertheless, as the definition of the concept encompasses the emotional aspect as well, the linguistic forms present in English also reflect this area of experience. However, it needs to be pointed out that they are not as numerous represented, owing to the fact that prototypically pain is associated with physical rather than emotional states. The metaphorical extensions noted in relation to the discussed concept seem to highlight the aspects of endurance in the face of incoming suffering (*to grit one's teeth; to keep a stiff upper lip; to bite the bullet*), trouble and effort (*growing pains; no pain, no gain; to take pains; for one's pains*), nuisance or unpleasant experience (*to kick up; a pain in the neck*). The emotional hardships expressed are primarily related to emotional grief (*to break someone's heart*), unpleasant experience (*bad trip*) or unrequited feelings (*to carry a/the torch for*).

It would be interesting to note how the elements of the frame under discussion are lexicalised in other languages, for instance Polish, to see if the concepts are universally rendered or if culturally-conditioned variations are observed. This, however, deserves an individual research study.

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