

Chapter V

Words from the lexical field of war and their metaphoric potential

A corpus-based study

1. Introduction

The present chapter is devoted to the domain of WAR as a source of metaphors. A number of investigations have been conducted so far into the metaphorical conceptualisation of various aspects of human life and society in terms of war on the basis of different discourses. For example, Charteris-Black (2004) analysed the language of political speeches, sports reporting, financial reporting and religious discourse; Koller (2004) examined business media discourse; Nerlich – Clark (2002), Nerlich et al. (2002), Nerlich (2005) considered the media representations of foot and mouth disease, stem cells and avian flu; Musolff (2004) considered the political debate about uniting Europe. All of these authors use real discourse as their data and identify its source. This is a significant step forwards in comparison to some CMT publications (Lakoff – Johnson 1980, also much of Lakoff – Johnson 1999, Kövecses 2002), where the source of examples on which the theory is built remains unspecified, most probably coming from introspection. This work is not a critique of introspection as such, but rather a non-valuating indication of difference in data type. In the case of both of these research styles there is a step in the analysis when the researcher moves from linguistic expression to categorisation through conceptual metaphor identification and labelling.

Kövecses (2002: 5)¹ for instance, perpetuates what he calls ‘classic examples’ from Lakoff – Johnson (1980). Among others, he gives AN ARGUMENT IS WAR conceptual metaphor and supports it with such sentences as

¹ I quote these examples from Kövecses (2002) and not Lakoff – Johnson (1980) to show that they are constantly reiterated and form a vigorous meme in the academic discourse on metaphor.

I *demolished* his argument.
I've never *won* an argument with him.

There is no indication here of any doubt concerning these examples. In the literature they seem to be universally considered good examples of the metaphor in question. However, the dictionary definition taken from the *Collins Cobuild English Language Dictionary (CCELD)* gives only two senses of the word *demolish*. First, in the context of building demolition as opposed to construction, with the meaning of knocking down buildings; and second, in the metaphorical use in the context of argument, with the meaning of criticising someone's idea or belief. Thus, this word does not seem to belong to the domain of WAR. Why should it be an indication of AN ARGUMENT IS WAR conceptual metaphor? After all it can be a lexical realisation of A THEORY IS A BUILDING conceptual metaphor. Similarly, the verb *win* can be used in many different contexts (the *CCELD* gives such contexts as competition, game and battle), why should a decontextualised example be an indication of ARGUMENT IS WAR conceptual metaphor? After all it can as well be the first example to hypothesize ARGUMENT IS A COMPETITION or ARGUMENT IS A GAME metaphor.

Charteris-Black (2004: 95-96) also notices a similar problem with the determining which words evoke which conceptual domain. He discusses this problem not with respect to the war domain, but BUILDING and JOURNEY. He points out that the words *bridge* and *barrier* can be interpreted either as indicative of BUILDING or JOURNEY metaphors. He rightly suggests that only reference to context can solve the problem. Unfortunately, not all potentially metaphorically used expressions appear in disambiguating contexts, as indicated by Charteris-Black's (2004: 98) example 5.14:

... that we had torn down the *barriers that separated those of different race and region and religion*. (Carter)

Also, despite his identifying of the problem, Charteris-Black does not explicitly use his own solution.

Also Koller (2004) noted that the WAR metaphor is quite specific, as its source domain is not uniform. It consists of both physical violence and military strategy elements. Further, Koller explains this lack of uniformity through the blending of the two domains in the course of the historical development of the concept and method of war from fistfights to

modern technological warfare. As suggested in Chapter Three, though, based on the review of contemporary philosophical and sociological works devoted to war, the modern understanding of war is based on the 19th and in particular 20th century wars between nation-states, and performed by the national armies. Although war as such certainly involves physical violence and hand-to-hand combat, these are not the most salient features of war. In fact, if war between personified nation or states can be conceptualised as HAND-TO-HAND COMBAT (Lakoff 2001, see Chapter Three, Section 7), then WAR and HAND-TO-HAND COMBAT can be considered separate domains. This distinction is vital for the analysis presented in this chapter.

In personal communication referred to in Chapter One, Section 2.3. Kövecses suggested that the only way to posit conceptual metaphors is informed introspection. To achieve this, in accord with his advice, this book includes a chapter (Chapter Three) on the conceptualisation of war emerging in the other social sciences, so that the analyses in Chapter Four could be “informed”. A revision of selected examples of the CMT literature on war also presented in Chapter Three showed what was the traditional wording of metaphors about war.

In this chapter I intend to go a step further and suggest a possible use of corpora as a source of knowledge about the frequency of use of words, often regarded as indicative of WAR metaphors in various contexts. I believe that the knowledge of these frequencies can facilitate the process of categorizing, identification and labelling of metaphors. My assumption is that words whose frequency in war contexts is high are a good indicator of WAR metaphors when used figuratively, while words which have the highest frequency in another literally used domain are not. I want to investigate

- (1) how frequently these words are used in the military context, as opposed to other possible contexts
- (2) is the military context the most frequent
- (3) if not, which context is the most frequent.

The answers to these questions can be found in a corpus. They constitute linguistic facts.

2. The data

This study is intended as an attempt to devise a corpus based aid in the identification and naming of metaphor Source Domains. It is not meant as a criticism of previous analyses, rather as a modest proposal for the advancement of intersubjectivity in metaphor research. The selection of words for the analysis is completely data-driven, to avoid any personal bias. The method is developed in relation to the WAR domain, because the background knowledge necessary for the interpretation of corpus data has already been gathered in Chapters Three and Four.

The Times War Reports Corpus (TWRC), used in Chapter Four and described in Appendix 1, has been used as a starting point for the selection of key words. In step one, a concordancer *antconc* freely available via the Internet from Laurence Anthony's web page (<http://www.antlab.sci.waseda.ac.jp/software.html>) has been used to compile a frequency list for *TWRC*. The words considered as typical for the lexical field of war have been selected from the list. Different word forms have been collapsed under one entry, so that the results for *attack* (noun and verb), *attacked*, *attacking*, *attacks* have been added together. That means that the results for words which do not differ in form in their verbal and nominal uses have been relatively higher, than for those where spelling differences occur between the word classes, as in the case of *invasion*, *invade*. In some cases the concordance lines have been checked to eliminate the homonyms which do not belong to the field in question, but could increase the score. For example the occurrences of the possessive pronoun *mine* have been subtracted from the results for the noun *mine/s*. The final frequency list consists of 167 items and is presented in Appendix 1.

In step 2 the decision to consider only those words which have a frequency above 100 occurrences in TWRC has been made. This decision has limited the list to the top 51 words.

In step 3 of the data selection, three independent linguistically trained judges have read the list and performed two tasks. First, they have ascertained that the words in the list represent the lexical field of war. Second, they have marked out those words which they have considered metaphorical in this lexical field. If at least two judges have agreed on a word's metaphorical status, the word has been crossed out from further investigations to circumvent the problem of the Source Domain. That is there seems to be no independent way of deciding whether a metaphoric

use of such a word is a mapping from the war domain or from the domain which was a source for the mapping into the WAR domain in the first place. They have ruled out *terrorism* and *terrorist* as not belonging to the war lexical field. They have removed the following words as metaphorical: *support, intelligence, crisis, strike, response, fire*.

In step 4, the judges' intuitions have been further corroborated by the intuitions of corpus lexicographers as presented in the *Collins Cobuild English Language Dictionary (CCELD)*. This dictionary was based on the *Cobuild Corpus*, later expanded and renamed as the *Bank of English*. It was a project led by Prof. John Sinclair, the precursor of corpus lexicography. This dictionary has been selected, because it was based on a corpus different from the one that is used in the present study, i.e. the British National Corpus. This dictionary is also used in the Pragglez procedure (described in Section 4) used in the analysis (Sections 5.1-5.7.). It is important to describe the structure of a dictionary entry in the *CCELD*. It is arranged by the senses and in the case of verb-noun homonyms the two parts of speech do not have separate entries. In such cases, the nominal uses of the word follow the explanation of the verb senses. They may have their own example preceded by the formula *used as a noun*.

The *CCELD* have confirmed the judges' intuitions. It has also eliminated further words, for example *force*, because it belongs to more domains than one. It has a military sense listed as number 20:

20. A force of soldiers or armed people is an organized group of soldiers or military vehicles.

However a more general sense is listed as 9:

9. Someone or something that is referred to as force has a considerable effect or influence on a situation or on people or things.

Sense number 7 is the first nominal sense, which is also the most concrete:

7. If you use force to do something or if it is done by force, strong and violent physical action is taken to achieve it.

Sense number 7 seems to be the primary one in accord with the embodiment hypothesis. The other two senses considered here (number 9 and 20) are both metaphorical extensions of 7 and it would be difficult to

prove that 9 is an extension of 20 rather than 7. Such words have also been deleted from the list.

The filtering procedure based on the intuition of the three judges concerning word metaphoricity in the war context as well as the consultation of the *CCDEL* has rendered the following list of words as having an unambiguously military sense:

military, attack, defence, general, troop, fight, bomb, crisis, missile, alliance, soldier, target, navy, weapon, raid, army, armed, invasion, ally, conflict, campaign, civilian, rebel, commander, naval, colonel, arms.

One word with a *TWRC* frequency below 100 has been added to the list on the basis of my intuition: *surrender*, because it shows a significant metaphorical potential and represents a less investigated grammatical category, that of a verb.

The 28 words obtained in the filtering process presented above have been used as queries in the *British National Corpus Word Query* (the corpus is described in Section 3 below). The *Word Query* shows all word forms beginning with a given letter string. In this way related derivatives or inflectional forms can be identified. If these forms have a frequency of around or above 200, then they are included in the analysis. In the case of the word *attack*, the *Word Query* results with a frequency above 200 have been the following:

attack	9275
attacked	2851
attacker	622
attackers	289
attacking	1160
attacks	3347 ²

The senses of the word forms identified by the Word Query and not in the qualitative analysis of newspaper reports have been checked in the *CCELD*. In the present case the word to consult has been *attacker*. There has been no such entry in the *CCELD*. As a remedy another corpus based

² Word formation derivatives such as *attack-and-run*, *attack-oriented* with the frequency of 1, *attack-minded* with the frequency of 5 and other words with such low frequencies were removed from the analysis.

dictionary: the *Macmillan English Dictionary for Advanced Learners* (MEDAL 2002) has been consulted. Here the definition does not include any military reference:

someone who physically attacks someone else

The word has therefore not been considered as indicative of the source domain WAR. The remaining words are used as queries for concordances of 200 random hits divided into different grammatical categories, for example *attacks* as 3rd person sg. present tense verb and plural noun, by means of the *POS (Part of Speech) Query*. The concordances are analysed with the aim of determining the predominant literal use (possible basis for metaphoric processes).

The *Word Query* results identifying morphologically related words and their frequencies are presented below. The number following the word indicates its frequency. Some of the words may have the same string of letters representing different part of speech. The word forms marked in bold are considered most interesting because they have morphologically related forms from different word classes: verb, noun and adjective. As many studies concentrate on nouns and the very formulation of conceptual metaphors requires nominalization, the word forms representing a number of word classes are analysed. It is also in accord with the call by Goatly (1997) to extend research on metaphorically used expressions beyond the noun.

allied (Adjective=A)	1340	bombardment	278
allied (Participle=Part)	311	bombed	326
ally	841	bomber	597
armed (A)	3475	bombers	486
armed (Part)	524	bombing	1048
armies	998	bombs (N)	1104
arms (Noun=N)	10554	campaign (N)	8351
army	11173	campaigns (N)	1281
battle (N)	5826	civilian	1356
battled	222	civilians	791
battlefield	334	colonel	1817
battles (N)	871	command (Infinitive=Inf)	436
bomb (N)	1877	command (N)	2605

commanded	722	invasion	1904
commander	1905	military (A)	
commander-in-chief	207	military (N)	10322
commanders	446	missile	460
commando	395	missiles	874
commandos	256	naval	1011
commands	936	navy	1476
conflict (Inf)	242	raided	1993
conflict (N)	5058	raiders	287
conflicting	927	raid (N)	1163
conflicts (N)	1427	raids	649
defence	11692	rebel (N)	661
defences	1093	rebellion	974
defend	2021	rebels (N)	1124
defended	977	soldier	1717
defender	1197	soldiers	3427
defenders	650	surrender (N)	461
defending	1188	surrender (V)	511
defensive	1240	surrendered	497
fight	6706	target (Inf)	241
fighter	954	target (N)	5858
fighters	927	targeted	797
fighting	5526	targeting	414
fights	670	targets	2582
fought	2865	troop (N)	509
general (N)	1558	troops	4725
generals	415	war	27264
invade	251	weapon	1940
invaded	570	weapons	3918
invaders	251		

These key words are used as the query items in the BNC. As many theoretical works in Conceptual Metaphor Theory seem to refer to language in general rather than to any specific genre, the BNC as a whole is consulted. The analysis follows the Praggelaz procedure.

3. The British National Corpus

The *British National Corpus* is a 100 million words corpus of contemporary British English created between 1991-1994. As with many corpora it is biased towards the written mode of the language (90%), but has a spoken part as well (10%). The selection criteria devised during the design stage were to ensure that within the written part 75% of the texts were informative, 25% were fiction. As for the types of media, 60% are books, 25% are newspapers and journals, between 5-10% are miscellaneous published materials (leaflets, brochures), between 5-10% are miscellaneous unpublished materials (letters, notes) and up to 5% texts written to be spoken. Texts could not be older than 1975 with an exception of a number of fiction texts which go back to 1964.

The spoken part is divided into a demographic section and a context-governed part. The demographic part consists of transcriptions of recordings made by 124 volunteers, both men and women from 38 different locations in the UK and from various social groups, who recorded their conversations for three days. The context-governed part consists of transcriptions falling into four categories: educational and informative contexts, business events, institutional and public events and leisure events. More detailed information is available on the *BNC* website at <http://www.natcorp.ox.ac.uk>.

BNC can be accessed through a dedicated concordancer *SARA*. The concordancer allows the researcher to look up the investigated word or phrase. It returns the matches in the form of concordance lines. If the context in the line is not sufficient it is possible to consult the text from which the example was derived through the *Browse* function. The returns can be sorted by left and right context, so that the same phrases preceding or following the node word can be grouped together, which facilitates the interpretation. *SARA* also offers collocability tests: z-score and MI (Mutual Information) statistical tests can be used for a predefined window size, i.e. a selected number of words to the left and right of the node word. an attempt to utilize z-score for the task in hand has been made, but the interpretation of results was as time consuming as interpreting the concordance lines, therefore the method was abandoned.

4. The Pragglez Procedure

The presentation of this procedure is based on the Panel Discussion: “Finding Metaphor in natural discourse: report on applying the Pragglez procedure”, which took place at the 6th Researching and Applying Metaphor (RAAM) Conference in Leeds, April 10-12, 2006. The panellists were: Gerard Steen, Ewa Biernacka, Lettie Dorst, Anna Kaal, Irene López-Rodríguez, and Tryntje Pasma, who participate in two research programmes conducted at Vrije Universiteit Amsterdam, i.e. “Metaphor in discourse: Linguistic forms, conceptual structures, cognitive representations” and “Conversationalisation of public discourse”.

Pragglez was developed through a cooperation of 10 metaphor researchers:

P eter Crisps, Chinese University Hong Kong, Hong Kong
R ay Gibbs, University of California, Santa Cruz, Santa Cruz CA, USA
A lan Cienki, Emory University, Atlanta, GA, USA
G raham Low, University of York, York, UK
G erard Steen, Vrije Universiteit Amsterdam, The Netherlands
L ynne Cameron, University of Leeds, UK
E lena Semino, Lancaster University, UK
J oe Grady, Cultural Logic LLC, Washington DC, USA
A lice Deignan, University of Leeds, UK
Z oltán Kövecses, Eötvös University, Budapest, Hungary.³

They set the goal of developing a reliable procedure for metaphor identification and proposed the following steps:

- 1) Decide about words. The word as the lexical unit examined for metaphorical use.
- 2) Establish the contextual meaning of the examined word.
- 3) Determine the basic meaning of the word on the basis of the dictionary (Most concrete, human oriented as opposed to specific or vague).
- 4) Decide whether the basic meaning of the word is sufficiently distinct from the contextual meaning.

³ The presentation of the researchers and the formulation of the five steps of the procedure given below are a verbatim quote from the handout distributed during the panel.

- 5) Decide whether the contextual meaning of the word can be related to the more basic meaning by some form of similarity.
- 6) If yes, mark the lexical unit as metaphorical.

With regard to point 1, the pool of words has already been established in Section 2. The way in which I employ the remaining instructions is shown in an example below.

The first word on the most frequent list of the 'war' words in my data was the noun *forces*, which, however, was considered a metaphorical use of the word *force*, therefore it is not considered in my analysis as it could blur the possible mappings by originating outside the investigated domain. For the second word, the adjective *military*, 200 random hits from the BNC were examined and considered by the present researcher as non-metaphorical uses of the word. The third most frequent word, *attack*,⁴ turned out to present a panoply of uses and is therefore suitable as the test example for the procedure. Incidentally this word was also discussed at the RAAM 6 panel, but only shortly and on what appears to be an invented example.

I take step 3 first. According to the *Collins Cobuild English Language Dictionary [CCELD]* (1987) the verb *to attack* has the following senses:

1. To attack someone is to use violence against them in order to hurt them, for example by hitting them or stabbing them.
2. If a group of people such as an army attacks buildings, towns or other armies, they start to use weapons violently against them in order to damage or destroy them.
3. If you attack someone or something such as a belief or an idea you criticise them strongly.
4. If something, such as a chemical, a disease or an insect attacks something, it harms it or spoils it.
5. If you attack something such as a job or a problem, you start to deal with it with energy and enthusiasm.
6. When players attack in a game of football, hockey, etc. they try to score goals.

⁴ The newspaper texts corpus was not tagged for parts of speech, so that the high ranking of the word *attack* is probably due to the collapsing of the verbal and nominal uses of the verb. The BNC investigation was conducted separately for different grammatical categories.

According to the embodiment hypothesis and step 3 of the Pragglejaz procedure, sense 1 is the most concrete, human oriented and specific sense of the word. It is therefore basic. I consider sense 2 as a non-metaphorical specification of sense 1. This meaning network is similar to that of *force/forces* discussed in Section 2. The analysis in Section 5.1. indicates which of the two literal senses is more frequent.⁵ Senses 3-6 are metaphorical, because they involve cross domain mappings. Let us apply these assumptions to data:

- (1) *If any of you attacks your brother from now on, if not ordered to do so by a superior, that attacker will be enslaved and used for chirurgical experiments in our laboratories for as long as he lives.* [CJJ 465]⁶

Here the verb is used in its basic, non-metaphorical sense of a person using physical violence against another with an aim of hurting them.

- (2) *The purpose of field artillery is both to destroy enemy assaults and to support one's own infantry as it attacks.* [CLX 214]

This is sense 2, a non-metaphorical extension of sense 1 in a military context.

- (3) *While they may not realise it, owners can be held liable if their dog attacks someone, or causes an accident or damage, and this policy covers them up to £1 million.* [ARJ 998]

Although no such sense is singled out in the dictionary, it can also be considered as a non-metaphoric extension of sense 1. The use of the word *attacks* here does not require any metaphorical operations, such as, for example, the personification of the dog.

- (4) *Finally, Gassendi attacks the idea that proofs must be syllogistic in form.* [ABM 464]

⁵ I hesitate to call the most frequent sense more salient, as saliency, although most certainly related to frequency is not its direct function.

⁶ Information in square brackets identifies the source text (acronym) and the sequence number of the node word.

In sentence (4) *attacks* is used in its dictionary sense 3 – a thinker disagrees with an idea. In this context it is a metaphorical use.

- (5) *There are problems with the way the sodium attacks the materials of the lamps and the very high temperature that the lamps have to run at.* [B73 783]

In sentence (5) the verb is used in its sense 4, i.e. a chemical damages the material of lamps. It is metaphorical.

- (6) *Because HIV attacks the immune system, such a vaccine may itself cause an AIDS-like syndrome by suppressing the cells of the immune system.* [CJ9 1933]

Here again, sense 4 is used, in the meaning of a disease disrupting the functioning of the immune system influencing it destructively. It is metaphorical.

- (7) *Sanchez-Vicario also, of course is equally tough and she attacks every ball so well.* [A0V 620]

Sentence (7) represents the use of the verb *attacks* in accord with sense 6, i.e. in a sport context. I consider this use metaphorical.

These were relatively clear instances, let us have a look at some less so.

- (8) *In terms of that deterrent, is it not right that when a submarine is cruising anywhere in the world's oceans, any potential aggressor who attacks the United Kingdom will stand the risk of unacceptable and devastating retaliation from us?* [HHV 16344]
- (9) *China attacks Patten 'reforms'* [CFC 1397]

Examples (8) and (9) show that analysing only agents or patients of an action would not be sufficient for determining the contextual meaning and as a result the metaphorical/non-metaphorical status of the use in question. Example (8) shows a military context, while example (9) – political. In (8) then, *attacks* is used non-metaphorically, while (9) is metaphorical. This interpretation is of course possible only if we believe that the use in sense 2, in the war context, is a non-metaphorical specification of sense 1.

The examples above show how the Pragglejazz procedure is understood and employed in this chapter. It is applied to the word forms selected in a corpus-driven process described in Section 2.

5. The analysis of concordance lines: Frequency of literal and metaphorical uses

5.1. ATTACK

These considerations take us back to the verb *attack* used as an example in the discussion on the Pragglejazz procedure. The physical sense was given as number 1 and was considered basic. The status of sense 2 as a non-metaphorical specification or metaphorical extension will be held in abeyance until further evidence is accumulated.

When it comes to the noun *attack*, despite the mention of the disease context in verb sense 4, the nominal use is singled out as a separate sense:

7. An **attack** of an illness is a short period in which you suffer badly from it and cannot control it.

Similarly to the verb, also in the case of noun sense 1 ‘physical violence’ is considered as basic.

A search in the BNC and an analysis of 200 random hits of the particular POS forms rendered the following results:

Table 1. The frequency of uses of different senses of the lemma ATTACK, considering its various morphological forms

Word	Literal	Metaphorical
<i>attack</i> , base form of a lexical verb and the infinitive (200 random hits out of 1457)	65 physical violence 48 military	54 criticise ⁷ 10 disease 7 sport 16 other

⁷ Labels used in this and the following tables are created on the basis of two sources: one is the dictionary definition, often presenting a context sensitive synonym for a given sense; the other is the researchers intuition, naming the synonym of the sense or the context in which the sense appears. Thus senses of the verb query can either be given in the form of a

Word	Literal	Metaphorical
<i>attacks</i> , present sg. 3 rd person (183 hits)	42 physical violence 5 military	35 criticise 30 disease 71 other
<i>attacked</i> , past tense and past participle (200 random hits out of 2581)	65 physical violence 38 military	45 criticise 7 politics 4 disease 3 eat 38 other
<i>attacking</i> , participle, (200 random hits out of 763)	54 physical violence 36 military	72 criticise 8 work intensively 6 sport 24 other
verb total (783 random hits out of 4984)	226 physical violence 127 military	206 criticise 44 disease 13 sport 167 other
<i>attacking</i> , adjective, (175 hits)	29 military 23 physical violence	114 sport 3 criticism 6 other
<i>attack</i> , singular noun, (200 random hits out of 6028)	38 physical violence 49 military	52 criticism 32 disease 15 sport 13 other [1 proper name]
<i>attacks</i> , plural noun (200 random hits out of 2648)	54 physical violence 63 military	42 criticism 28 disease 8 sport 5 other
noun total (400 out of 8676)	92 physical violence 112 military	94 criticism 60 disease 23 sport 18 other 1 proper name

In the case of the noun, the military sense prevails over the ‘physical violence’ sense. The metaphorical sense of ‘criticise’ and the ‘physical violence’ sense have similar frequency.

synonymous verb or indicated by the noun describing the context of use. The choice between the synonym and context label is based on space economy.

The adjectival *-ing* form is most often used in the sport context (*attacking play, attacking or defensive attitude, attacking batsman*).⁸ In the case of all the other word forms the most frequent use is that in the ‘physical violence’ sense. This sense is also the most basic one in terms of the Pragglejaz and embodiment requirements. As the ‘physical violence’ sense is indicative of the HAND-TO-HAND COMBAT domain, the question arises whether the uses of the verb *attack*, say in the meaning of ‘criticise’, should be considered as exemplifications of the ARGUMENT IS WAR metaphor or perhaps a more concrete ARGUMENT IS A HAND-TO-HAND COMBAT metaphor. Of course, to posit a new conceptual metaphor one needs a more complex lexical representation than just one verb use.

Szwedek (2006 p.c.) suggested that WAR, being the most salient example of the CONFLICT domain is probably the prototypical source for metaphoric understanding of other concepts within this domain, thus justifying the original Lakoffian formulation of the metaphor. Another factor coming into play here is the fact that in the case of the total sum of nominal uses the military sense predominates. At the same time the frequency of the nouns is higher than that of the verbs. Possibly then, the basic meaning for the lemma is the military sense (the total frequency does not show this as, 5 verb forms, and only two nominal forms were investigated, so that the balance is twisted towards the verb). The uncertainty concerning the role of the verb *attack* as the indicator of a war metaphor will be cast over a broader background after the analysis of the remaining verb – noun pairs.

5.2. BOMB

Now we turn to the next cluster of morphologically related words, i.e. *bomb* (N and V), *bombing* (N and V), *bombard*, *bombardment*. The CCELD gives the following senses for the noun *bomb*:

1. A **bomb** is a weapon which explodes and damages or destroys a large area. Some types of bombs are left in the place where they are intended to explode, and other types are dropped from an aircraft.
2. People talk about **the bomb** to refer to the atom bomb when considering the possession of nuclear weapons as a political issue.

⁸ *Attacking* as an adjective does not appear either in the CCELD or in the MEDAL, so its dictionary sense could not be used for reference.

Senses 4,5,6 concern the use of the noun **bomb** in various idiomatic expressions:

4. If something costs a **bomb**, it costs a great deal of money.
5. If a car, bike, etc. **goes like a bomb**, it goes very fast indeed.
6. If an event **goes like a bomb** or **goes down a bomb**, it is extremely successful.

Senses 3 and 7 of this entry refer to a verb and are shown below:

3. If people **bomb** a place, they attack it by dropping bombs on it from an aircraft.
7. If you **bomb** along, you move very quickly, usually in a vehicle.

According to the *CCELD* the basic sense of both the noun and verb *bomb* is its military sense. Senses 5, 7 are considered metaphorical extensions of the basic sense along the dimension ‘speed’. When it comes to senses 4 and 6, I cannot see any link between this sense and the basic sense. I intended to single it out in column 3 in the results table as a separate sense, but it did not appear in the analysed sample of 200 words.

When it comes to the noun *bombing*, it is added to sense 3 of the *bomb* entry, but does not have a separate definition. The *MEDAL* offers a separate definition:

an attack or attacks made using bombs.

It, clearly, has only one, military sense, so if it occurs in any non-military contexts, these occurrences can be considered metaphorical extensions.

The verb *bombard* is defined by the *CCELD* in the following way:

1. If people **bombard** a building or area of land, they attack it with continuous heavy gunfire or bombs.
2. If one thing **bombards** another it attacks this thing continuously and with a lot of force, for example by hitting it with something.
3. If you **bombard** someone with questions, criticism, etc, you keep asking them aggressive questions or saying aggressive things to them.

The noun *bombardment* is defined in a similar way in the *CCELD* with the number 1 sense awarded to the military meaning, and number 2 to the ‘speaking’ meaning. The military sense is the basic sense here and the ‘speaking’ sense is its metaphoric extension.

Let's see the results of the identification of literal and metaphorical senses in the table below.

Table 2. The frequency of uses of different senses of the lemma BOMB considering its various morphological forms

Word	Literal	Other	Metaphorical
<i>bomb</i> , base form of a lexical verb and the infinitive (117 hits) ⁹	108 military	5 ambiguous	2 fail 1 move fast 1 hit guitar strings
<i>bombed</i> , past tense and past participle (200 random hits out of 211)	181 military	1 metonymy 3 ambiguous	7 fail 4 sport 2 move fast 2 be drunk
<i>bombing</i> , participle (91 hits)	81 military	0	8 move fast 1 move noisily 1 act fast (solving maths)
<i>bomb</i>, verb total (408 out of 419)	370 military	8 ambiguous 1 metonymy	11 move fast 9 fail 4 sport 2 be drunk 1 move noisily 1 act fast 1 hit guitar strings
<i>bomb</i> , singular noun (random 200 out of 1877)	191 military	1 song name 2 ambiguous	1 unexpected news 1 rapid increase (population bomb) 1 naughty children 1 went down a bomb 1 it cost them a bomb 1 two to the bomb
<i>bombs</i> , plural noun (random 200 out of 1104)	192 military	0	4 volcanic bombs 2 chords in guitar music 1 ideas 1 people in a relationship

⁹ The number of the hits differs from that of the POS query result, because the grammatical category was tagged wrongly 11 times. Nouns were tagged as verbs.

Word	Literal	Other	Metaphorical
<i>bomb/s</i>, noun total (random 400 out of 2981)	383 military	1 song 2 ambiguous	4 volcanic bombs 2 chords in guitar music 1 rapid increase 1 unexpected news 1 naughty children 1 went down a bomb 1 cost a bomb 1 two to the bomb 1 idea 1 people in a relationship
<i>bombing</i> , singular noun (random 200 hits out of 746)	200 military	0	0
<i>bombings</i> , plural noun (195 hits)	195 military	0	0
<i>bombing/s</i>, noun total (395 random hits out of 941)	395 military	0	0
<i>bombarded</i> , past tense and past participle (165 hits)	33 military 4 physical attack	0	105 abstract (<i>questions, ideas</i>) 13 physical particles (<i>neutrons, rays</i>) 7 natural forces (<i>hail, snow</i>) 3 sport
<i>bombardment</i> , noun (200 random hits out of 278)	151	2 ambiguous	22 natural forces (18 from the same source) 14 physical particles 7 abstract 3 sport 1 sensory stimulation

The lemma BOMB, because of its morphologically related nominal and verbal synonyms, is particularly interesting for lexical analyses. As for the noun *bomb*, in both the singular and the plural it was predominantly used literally, but had a small number of metaphorical extensions. Similarly to this noun the verb *bomb* had a small number of metaphorical extensions. All of the attested examples of the plural noun form *bombings*

and a sample of a random 200 examples out of 746 of the singular form *bombing* were used in the literal military sense. There were no metaphorical extensions found. When it comes to the noun *bombardment* as many as 25% of the uses were metaphorical, while the verb *bombard* (only the past tense and past participle forms were attested in a significant number) was predominantly used metaphorically. These results, similarly to those obtained for the nouns *battlefield* and *battleground* presented in Fabiszak – Kaszubski (2005), show that such closely related synonyms appear in complementary distribution, so that one form is more likely to be used metaphorically, while the other literally.

5.3. CONFLICT

Another lexeme to investigate is that of *conflict*. The *CCELD* first defines its nominal senses:

1. **Conflict** is 1.1 serious disagreement and argument about something important. 1.2. A state of mind in which you find it impossible to make a decision or choice.
5. A **conflict** is 5.1 a serious difference between two or more beliefs, ideas or interests, which cannot be reconciled. 5.2 fighting between two or more countries or groups of people.

Senses 2,3,4 and 6 explain the use of the word in specific prepositional phrases. There is only one verbal sense:

7. If two or more ideas, interests, accounts etc. **conflict**, they are very different and it seems impossible for each of them to be true.

The dictionary also gives the adjective *conflicting*, following the verb sense 7, but does not define it, and only provides two examples, neither of them military. According to the definitions, only the countable noun has a military sense. An analysis of a sample of 100 random hits out of 329 of the verb *conflict*, showed 24 singular nouns erroneously tagged verbs and 76 uses of the verb, all in the general sense given above. For the adjective *conflicting* 200 random hits out of 881 were analysed. 6 of them were verbs tagged as adjectives, 193 were used in the general sense and 1 was

used in the military sense. The results of the analysis for the noun *conflict*, which is the only one belonging to the domain of WAR, are given below:

Table 3. The frequency of uses of different senses of the noun conflict

Word	Literal	Metaphorical
<i>conflict</i> , singular noun (200 random hits out of 5058)	54 military 1 physical violence	145 general
<i>conflicts</i> , plural noun (200 random hits out of 1427)	35 military	164 general 1 disease
noun total (400 random hits out of 6485)	89 military 1 physical violence	309 general 1 disease

The analyses presented in the paragraph above indicate that the verbal and the adjectival uses should not be considered as metaphorical extensions of the military sense, simply because they do not have such a sense. When it comes to the noun, indeed the military sense is the most concrete of those attested in any significant number (i.e. ignoring the single physical violence use). Thus this military use may suggest that when the noun is used in any of its other senses it can be considered a lexical realisation of the conceptual metaphor X IS WAR.

5.4. DEFEND

Next, we shall have a closer look at the lemma DEFEND. According to the *CCELD* the verb *defend* has the following senses:

1. If you **defend** someone or something 1.1 you take some action in order to protect them against danger or violence. 1.2 you do or say something that is intended to help them to survive or continue, for example when their rights or existence is threatened.
2. If you **defend** a person or their ideas or actions, you argue in support of them when they have been criticised.
3. If people **defend** a place or a country they protect it against attack by using military force.
4. If someone, especially a lawyer **defends** someone accused of something they argue in a court of law that the charges are not true.

5. If a champion **defends** his or her title or championship, he or she plays a match or a game against someone who will become a new champion if they win.

Here senses 1.1 and 1.2 are formulated in very general terms such as *some action, something*. It is thus difficult to say if this is the most concrete human oriented sense of the word. Unlike the definition of the verb *attack* it does not include reference to the use of physical force. The *MEDAL* organizes the senses differently with the military sense coming to the fore in the example, as shown in the formulation of the first sense and the example chosen to illustrate it:

1. to protect someone or something from attack: *Thousands of young men came forward, willing to defend their country.*

The vagueness of the *CCELD* definition of the first sense may be an indication that it is sense 3 which is the most basic. I therefore also consider it as the most basic. This hypothesis is tested by the frequency counts in the analysis. Senses 2, 4 and 5 are regarded as metaphorical extensions of sense 3.

The noun *defence* has 5 senses in the *CCELD*:

1. **Defence** is 1.1 action which is taken in order to protect someone or something against attack. 1.2. the system and organization of a country's armies and weapons.
2. A **defence** is 2.1 a quality or possession that someone or something has and that they can use to protect themselves. 2.2 A way of behaving or thinking which protects you emotionally and stops you showing weakness. 2.3 something that you say or write which supports ideas or actions that have been criticised or questioned. 2.4 a process in a court of law of denying a charge which has been made against someone.
3. The **defence** is the case that is presented by a lawyer for the person in a trial who has been accused of a crime; also used sometimes to refer to this person and his or her lawyers.
4. The **defences** of a country or region are all its armed forces and weapons.
5. The **defence** in a football team, a hockey team, etc. is the group of players who try to stop the opposing players scoring a goal or a point.

The word *action* used in the explanation of sense 1 is so general and vague that it is difficult to say to what extent this sense can be considered as 'most concrete, human oriented'. In this case, however, the example cho-

sen to illustrate it may cast some light on the issue: *They carried sticks for defence rather than aggression...* It does imply physical aggression and so introduces a certain parallel to the definition of the word *attack*.

The adjective *defensive* has its military sense as number 1:

1. You use **defensive** 1.1 to describe things that are designed for or capable of defending a country or area by military force. 1.2 to describe things that are intended to protect someone or something
3. Someone who is **defensive** acts in a way that is intended to hide their weakness.

Sense 2, not quoted above, refers to the phrase *on the defensive*, which will not be considered here. I regard sense 1.1 as the basic one, while sense 1.2 as its generalisation. Sense 3, although more human oriented than 1.1 concerns an inner psychological state difficult to observe and therefore less concrete than 1.1.

The results of the analysis of the literal and metaphorical uses of these three parts of speech derived from the stem *defen** (showing their frequencies) are presented in the table below.

Table 4. The frequency of uses of different senses of the lemma DEFEND considering its various morphological forms

Word	Literal	Other	Metaphorical
<i>defend</i> , base form of a lexical verb and the infinitive (200 random hits out of 2021)	31 military 18 physical violence	43 general	53 speaking 25 sport 10 legal 20 other
<i>defended</i> , past tense and past participle (200 random hits out of 977)	43 military 7 physical	4 general	97 speaking 19 legal 18 sport 12 other
<i>defending</i> , participle, (200 random hits out of 640)	23 military 11 physical	3 general	87 speaking 23 legal 18 politics 14 sport 21 other
verb total (600 random hits out of 3638)	97 military 36 physical	50 general	237 speaking 57 sport 52 legal 18 politics 53 other

Word	Literal	Other	Metaphorical
<i>defensive</i> , adjective, (200 random hits out of 1240)	54 military 14 physical	60 general	30 sport 13 speaking 10 business 9 emotional 5 political 5 other
<i>defence</i> , singular noun and proper noun, (200 random hits out of 11477)	57 military 3 physical	57 proper noun	32 legal 17 sport 16 speaking 14 other 4 ambigu- ous
<i>defences</i> , noun (200 random hits out of 1098)	70 military 1 physical		32 legal 21 disease 14 against sea 14 emotion 13 sport 10 speaking 10 business 15 other
noun total (400 random hits out of 12575)	127 military 4 physical	57 proper noun	64 legal 30 sport 26 speaking 21 disease 14 against sea 14 emotion 10 business 29 other 4 ambigu- ous

In this table, the third column shows those uses of the verb where on the bases of the limited sentential context, even if extended to a wide co-text view, it was impossible to determine the nature of the protective action taken, be it physical or verbal. This seems to be corroborated by the dictionary definition, as here the wording is also general. In the case of the nominal uses, column 3 was used to single out the proper names involving the word *Defence* (*Minister/stry of Defence*, *Defence Secretary*). For the verb *defend* the most frequently used sense is that of speaking to protect someone or something from criticism. Here, as in the case of *attack*,

the noun is most frequently used in the military sense. At the same time, the verb is used twice as often in the speaking sense than in the military sense. Can this be taken as an indication that the use of the noun in its speaking sense will have a more metaphorical ring to it than the verb? Will the verb have a weaker power of activating other potential metaphoric mappings from the same domain?

5.5. FIGHT

The next item to be analysed is *fight* in its various grammatical forms. The *CCELD* defines verbal senses thus:

1. If you **fight** something, you try in a determined way to prevent it or stop it happening
2. If you **fight** for something you try in a determined way to get it or achieve it.
3. If you **fight**, 3.1 you take part in a battle or war. 3.2 you try to hurt someone, for example by hitting them with your fists, while they try to hurt you in a similar way. 3.3 you take part in a boxing match. 3.4 you quarrel with another person.
4. If you **fight** someone for something, for example for an important job, you compete with them for it.
5. If you **fight** an election in a particular place you are a candidate in an election and you try win it.
9. When you fight an emotion or desire, you try very hard not to feel it, show it, or act on it.

Senses 6, 7, 8 and 10, 11, 12, 13 explain the meaning of specific verb phrases (e.g. *to fight for breath*) or noun phrases (*fighting chance*, *fighting fit*). When it comes to the nominal derivatives they do not have separate subentries, but follow the verbal senses. Senses 1, 2, 3.2, 3.3, 3.4 and 4 introduce nominal examples with the phrase *used as a noun*. Sense 3.1. develops this phrase into a sense description: *used as a noun, especially to refer to a battle to get control over a particular place*. It also introduces a derivative uncountable noun *fighting*, with an example, but no definition, indicating that it is very similar in meaning to the preceding verb sense. Sense 7 introduces an uncountable noun *fight – the desire or ability to keep fighting*. Among these senses, sense 3.2 seems to me to be the most concrete one. The military sense 3.1 can either be

considered as a literal extension of sense 3.2 or, more in line with the metaphor WAR IS A HAND-TO-HAND COMBAT, as a metaphorical extension of sense 3.2. If we reject the first of these two conflicting premises, then lexical realisations like (10) should not be considered as representing the POLITICS IS WAR conceptual metaphor, but POLITICS IS A HAND-TO-HAND COMBAT.¹⁰

- (10) *People can see how across there Israeli politicians fight each other in parliament, and in Greece they bring to account a corrupt prime minister.* [A57 352]

Naturally, within blending theory we could possibly claim that the end product of the WAR IS A HAND-TO-HAND COMBAT blending process became the input for another blending process resulting in POLITICS IS WAR, but it seems a bit stretched and against Ockham's Razor Principle. An analysis of the frequencies of the 'physical violence' and the military sense may cast some light on this dilemma. The results of the analysis of the lexeme *fight* are given in Table 5. The metaphorical uses are divided into target domains often reported to be described in terms of war. The uses, whose context does not point to any such specific domain, are dubbed 'general'.

Table 5. The frequency of uses of different senses of the lemma FIGHT considering its various morphological forms

Word	Literal	Other	Metaphorical
<i>fight</i> , base form of a lexical verb and the infinitive (200 random hits out of 3534)	36 physical violence 31 military	9 ambiguous 5 <i>fight shy of sth.</i>	81 general 15 sport 11 politics 6 business 5 disease 1 chemistry
<i>fight</i> s, 3rd person singular (138 hits)	39 physical violence 4 military	12 nouns tagged as verbs 2 <i>fight</i> s shy 3 unclear	52 general 11 disease 7 business 7 politics 1 argument

¹⁰ Here POLITICS as the target domain is used as an example. The doubts raised at this point would also obtain for any other target domain, be it ARGUMENT, GAME, BUSINESS, DISEASE, etc.

Word	Literal	Other	Metaphorical
<i>fighting</i> , participle (200 random hits out of 2368)	55 military 34 physical violence	2 ambiguous	88 general 7 sport 6 politics 4 disease 2 law 1 fire 1 business
<i>fought</i> , past tense and past participle (200 hits out of 2865)	76 military 28 physical violence	2 ambiguous	59 general 15 politics 13 sport 4 disease 3 fire
verb total (738 random hits out of 8905)	166 military 137 physical violence	13 ambiguous 7 <i>fight shy of</i> 12 nouns 3 unclear	280 general 39 politics 35 sport 24 disease 14 business 4 fire 2 law 1 argument 1 chemistry
<i>fight</i> , singular noun (200 random hits out of 2293)	104 physical violence 10 military	4 ambiguous	45 general 11 argument 8 sport 7 politics 6 disease 4 emotions 1 chemical
<i>fight</i> s, plural noun (200 random hits out of 356)	175 physical violence 2 military	2 misspelt <i>flights</i> 2 verbs, erroneously tagged as nouns	12 argument 3 general 2 politics 1 sport 1 disease
<i>fight</i>/s, noun total (400 random hits out of 2649)	279 physical violence 12 military	4 ambiguous 2 misspelt 2 verbs	48 general 23 argument 9 sport 9 politics 7 disease 4 emotions 1 chemical
<i>fighting</i> , noun (200 random hits out of 1583)	128 military 53 physical violence	1 <i>fighting chance</i>	12 general 5 sport 1 fire

As can be seen in Table 5, in the analysed samples the metaphorical uses of the verb *fight* prevail over the literal uses. As far as the literal senses are concerned, the infinitive, the base form and in particular the third person singular when used in their literal meaning are most often employed in the physical violence sense. Apparently, the past tense and past participle are more common in military contexts than the present tense, as these forms, when used literally, are most often used in their military sense. The joint results for all the verb forms analysed show the predominance of the metaphorical uses; when it comes to the literal uses, the military sense prevails over the physical violence sense. It may support the claim that the use of the verb *fight* in its metaphorical senses can be an indication of the metaphor X IS WAR.

The situation with the noun *fight* differs considerably from that of the verb. The physical violence sense is clearly most frequently used. The metaphorical uses here amount to about 25% of the analysed examples. The military use is rare. Thus, unlike in the case of the verb, the claim for the basicness of the most human oriented sense and the frequency of this sense reinforce each other. As a result, the metaphoric uses of the noun *fight* could be considered as representing the conceptual metaphor X IS A HAND-TO-HAND COMBAT rather than X IS WAR.

It is interesting to note that another nominal derivative: *fighting*, behaves in an entirely different way than the noun *fight*. In this case it is the military sense that dominates. Therefore when used metaphorically, the noun *fighting* to an even greater extent than the verb *fight*, and unlike the noun *fight*, can be considered an indication of the underlying metaphor X IS WAR.

5.6. INVADE

Another group of morphologically related words to be considered is that of the *invade* family. The verbal senses in the *CCELD* are described thus:

1. To **invade** a country means to enter it by force with an army.
2. If people, animals or insects **invade** a place or a building, they enter it in large numbers; sometimes used humorously.
3. If someone or something **invades** your privacy, they disturb you when you are peaceful or when you want to be alone.

In this entry the first, military sense is the basic sense. Senses 2 and 3 are the metaphorical extensions of sense 1.

The noun *invader* is defined as:

1. **Invaders** are soldiers who are invading a country.
2. An **invader** is a country or army that has invaded or is about to invade another country.

Here sense 1 is the basic one, more in accord with the human scale. Sense 2 extends the meaning to abstract entities like countries and can be therefore considered metaphorical.

Invasion has the following definition:

1. An **invasion** is the action of an army entering a country by force.
2. An **invasion** is also 2.1 the arrival of someone or something in a place where they are not wanted. 2.2. the arrival in a place of large numbers of people or things; often used humorously.

Sense 1 will be here considered as basic. Senses 2.1 and 2.2 are its metaphorical extensions.

Table 6. The frequency of uses of different senses of the lemma INVADE considering its various morphological forms

Word	Literal	Metaphorical
<i>invade</i> , base form of a lexical verb and the infinitive (200 random hits out of 251)	100 military	25 about abstract entities (<i>thoughts</i>) 25 come in big numbers 24 about pest, weeds etc 14 privacy, personal space 10 about natural forces (<i>sea</i>) 1 sport 1 species
<i>invaded</i> , past tense and past participle (200 random hits out of 266)	121 military 7 physical violence	24 about abstract entities 21 come 8 privacy 7 natural forces 3 business 3 about sexual intercourse 3 animals 3 disease

Word	Literal	Metaphorical
verb total (400 random hits out of 516)	221 military 7 physical violence	49 about abstract entities 46 come 24 about pest 22 privacy 17 natural forces 3 business 3 sexual intercourse 3 animals 3 disease 1 sport 1 species
<i>invasion</i> , noun (200 random hits out of 1904)	165 military 2 physical violence	9 arrival 8 disease 5 of privacy 3 sport 3 about pest etc 2 natural forces 1 about abstract entities 1 species 1 sexual intercourse
<i>invasions</i> , noun (141 hits)	104 military 2 physical violence	20 arrival 6 natural forces 2 business 2 disease 1 species 1 about abstract entities 1 of privacy 2 ambiguous
<i>invasion/s</i>, noun total (341 hits out of 2045)	269 military 4 physical violence	29 arrival 10 disease 6 of privacy 3 sport 3 about pest 8 natural forces 2 business 2 abstract entities 2 species 1 sexual intercourse 2 ambiguous

Word	Literal	Metaphorical
<i>invaders</i> , plural noun (200 random hits out of 251)	170 military	13 unarmed group of people 6 pest 4 band/team name 2 species 1 new and popular things 1 abstract entities 1 personal space 1 sexual violators 1 virus

In the case of the verb *invade*, and the nouns *invasion* and *invaders*, the basic sense is at the same time the most frequent. It is the military sense. When used metaphorically they refer to large groups of people, animals, or plants deemed threatening but even slightly more often to abstract entities, such as feelings or thoughts, appearing in the mind of an experiencer. In all these cases, I believe, the words in question can be regarded as indicative of the X IS WAR metaphor.

5.7. SURRENDER

The last set of words to be investigated in this section is the verb and the noun *surrender*. According to the *CCELD*, the verb *surrender* has the following senses:

1. If you **surrender**, you stop fighting or resisting someone and agree that you have been beaten, often by formally signing a document.
2. If you **surrender** to a force, temptation, feeling, etc you are unable to resist it any longer and so you allow it to gain control of you or influence you.
3. If you **surrender** something to someone, you give away something that is valuable or important to you.
4. If you **surrender** a ticket, passport, or some other document, you give it to someone in authority when you are told to do so.

Senses 1, 2 and 3 also have their nominal equivalents, introduced by *used as a noun* phrase. The analysis of the senses suggests that sense 1 is the basic one, while sense 2 is its extension. It seems that senses 3 and 4 are not related to sense 1 in a synchronically transparent way. Etymologically, the word comes from the Old French *surrender* ‘give up, deliver’

and was borrowed with this sense as well as the military sense, which must have been a meaning extension from the then basic ‘give’ (*OED*). Historically, then, sense 3 could be considered basic, with 4 being its specification, and 1 and 2 extensions. At present, though, the first interpretation seems most consistent, i.e. sense 1 being the basic one, sense 2 its metaphorical extension, senses 3 and 4 related to each other but with the relation to senses 1 and 2 weak or altogether non-existent.

The results of the analysis of the BNC examples are presented in Table 7 below.

Table 7. The frequency of uses of different senses of *surrender* considering its various morphological forms

Word	Literal	Metaphorical
<i>surrender</i> , base form of a lexical verb and the infinitive (200 random hits out of 511)	80 military sense 22 give away	65 to abstract entities (<i>will, power</i>) 18 unarmed groups of people 5 sport 5 sexual 2 disease 1 natural forces 2 unclear
<i>surrendered</i> , past tense and past participle (random 200 hits out of 400)	92 military 14 one person to another 21 give away 5 adjectives tagged as verbs, all in the military sense	50 abstract 9 sport 4 sexual 3 psychological 1 natural forces 1 disease
verb total (400 random hits out of 911)	172 military 43 give away 14 one person to another 5 adjectives tagged as verbs	115 abstract entities 18 unarmed groups of people 14 sport 9 sexual 3 psychological 3 disease 2 natural forces 2 unclear
<i>surrender</i> , noun (200 random hits out of 461)	122 military 11 give	58 abstract 7 sexual 2 about armed criminal groups

The analysis of the examples from the BNC shows that the most frequent sense is the military one. Therefore, both the verb and the noun *surrender* can be considered as indicative of the X IS WAR metaphor.

6. Summary of the results and conclusion

An analysis of various literal and metaphorical senses of the words identified as common in the war reports and thus considered as constituting the lexical field of war has shown that the military sense has not always been the most frequent literal sense of the word. For example, in the case of the verb *attack* and the noun *fight* the ‘physical violence’ sense dominated. On the other hand, a related noun *fighting* has been mostly used in its military sense. It is therefore relatively safe to claim that while the noun *fight* seems to be more indicative of the X IS A HAND-TO-HAND COMBAT metaphor, the noun *fighting* is more likely to be a manifestation of the X IS WAR metaphor.

As for the verb *defend*, what seemed to be a metaphorical sense of ‘speaking’ turned out to be most common. The question arises at this point whether, in accord with the embodiment claim, ‘speaking’ is not more basic, concrete, bodily based than ‘defending’ in the military sense? Can this basicness be overruled on the basis of etymology? And how far in word history would we need to go?¹¹ Whatever the answer to this question may be, sheer frequency may suggest that even if in some cases the use of the verb *defend*, in its ‘speaking’ sense, may activate the conceptual metaphor ARGUMENT IS WAR, in many cases the metaphor will remain dormant.

When it comes to synonyms and morphologically related words, they seem to select different meaning foci as if to utilize their formal differentiation. That was the case with the verbs *bomb* and *bombard*, where *bomb* was predominantly used in its military sense, while *bombard* in the metaphorical sense. This tendency is also reflected, though to a lesser extent, in the use of their nominal derivatives. *Bombing* in the analysed sample was used only in the military sense, while *bombardment* had a small number of metaphorical uses. The case of the nouns *fight* and *fighting* has been presented above.

¹¹ According to the *OED* it is a borrowing from Old French into Middle English with the first sense ‘ward off, protect’. The ‘speaking’ sense is listed as number 5, but it also appeared already in Middle English.

The noun *conflict* has predominantly general sense uses. The military sense can be considered as a narrowing of the general sense. There seems to be no ground for interpreting it as a metaphorical extension of the military sense. It is therefore not a manifestation of the X IS WAR metaphor.

From among the investigated words, four groups can be distinguished. The first one consists of the words with a strong (understood as most frequent) military sense or the military sense as the only literal sense and with a strong metaphorical potential. They are *bombard* (V), *fighting* (N), *invade* (V), *invasion* (N), *invaders* (N), and *surrender* (V, N). Group two is constituted by the words in which the ‘physical violence’ and the military sense compete with each other and it is difficult to claim with any degree of certainty whether they are an indication of the X IS WAR or the X IS A HAND-TO-HAND COMBAT metaphors. They are *attack* (N) and *fight* (V). The third and fourth group should not be taken as an indication of the X IS WAR metaphor. The third group includes *attack* (V), *conflict* (N) and *fight* (N). *Attack* (V) and *fight* (N), on the basis of the frequency of their ‘physical violence’ sense can be considered as expressions of the X IS A HAND-TO-HAND COMBAT. *Conflict* (N), from the fourth, one-element group, is so general that when it is used about ARGUMENT, SPORT, WAR etc it can be considered as a statement of inclusion; a generalisation, often perhaps euphemistic, rather than a metaphorization. These results are summarised in Table 8 below.

Table 8. Summary of the results

Group I: good indicators of WAR as source of conceptual meta- phor	Group II: ambiguous be- tween WAR and HAND-TO-HAND COMBAT as source	Group III: good indicators of HAND-TO-HAND COMBAT as source	Group IV: general hyponym for the interaction of competing forces
<i>bombard</i> (V) <i>fighting</i> (N) <i>invade</i> (V) <i>invasion</i> (N) <i>invaders</i> (N) <i>surrender</i> (V, N)	<i>attack</i> (N) <i>fight</i> (V)	<i>attack</i> (V) <i>fight</i> (N)	<i>conflict</i> (N)

Concluding, the high frequency of senses other than military, in the case of the investigated words – the ‘physical violence’ sense – should be

taken as an indication that these words may not be a lexical realization of the underlying conceptual metaphor X IS WAR. Instead, they may be a manifestation of the X IS HAND-TO HAND COMBAT conceptual metaphor. This does not necessarily mean that if the military sense predominates, then its metaphoric extension will be evidence of the X IS WAR metaphor. For example, in sentence (11) below, the word *bomb* does not seem to evoke the X IS WAR conceptual metaphor:

- (11) *So has a summer of bombing round country lanes and setting psychics loose in the circles helped him figure out whether whirlwinds, UFOs or tabloid journalists are responsible?* [ACP 2088]

In this example the verb *bomb* clearly has little to do with seeing a trip in the country as war. The effect of the metaphor seems to be limited to highlighting the fast, frantic movement.

As has been indicated in the introduction to the present chapter, many scholars working in the cognitive discourse analysis noted the problem of identification of source domains for metaphors. Investigation of naturally occurring discourse is not as clear as introspection, as there is only as much context as the text producer gave and it cannot always fulfil the requirements of linguistic analysis and interpretation. In this chapter an attempt has been made to show that a corpus-based analysis of the words considered the indicators of a specific domain may show which non-metaphoric senses of the word are most frequent and that this knowledge may influence the indicator status of these words. That is, if one of the basic senses of a word is far more frequent than the other, it is more likely to be activated in every use and in metaphor formation and interpretation.