RE-THINKING METAPHORS IN COVID-19 COMMUNICATION

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Abstract – This article discusses metaphors used in communication in English about COVID-19 in the light of the critical debate on war-related metaphors that has taken place both in the academia and in the press since the outbreak of the pandemic, as various scholars have argued that such metaphors may have counterproductive effects under various viewpoints. Proposals have also been put forward to replace them with alternative less potentially harmful metaphors (e.g. FOOTBALL, FIRE, STORM, TSUNAMI). In this paper the discussion is based on the analysis of a corpus of print and online news and opinion websites dealing with COVID-19, and aims at verifying the actual use and frequency of both war-based metaphors and non-war alternative metaphorical expressions. At the same time, it intends to evaluate the potential adverse effects of the former and the advantages of the latter as claimed by the scholars involved in the debate. It also shows that in articles and posts dealing with the coronavirus pandemic, WAR metaphors and their entailments are virtually still prevalent, indeed ubiquitous, while the alternative metaphors proposed by scholars appear far more sporadically, with only few instances for each of them or none at all. This high frequency of war-related metaphorical expressions, which is found also in various other domains and in spontaneous speech, mostly in recurrent (and therefore predictable) phraseological configurations, suggests that they have now become conventional and lost their resonance, thus reducing their potential impact.

Keywords: metaphor; COVID-19; framing; war-related metaphors; coronavirus.

1. Introduction

This article discusses metaphors used in communication in English about COVID-19 in the light of the critical debate on military metaphors and the proposal to replace them with alternative less potentially harmful metaphors. The discussion is based on the analysis of a print and online news and opinion website corpus, and aims to verify the actual use of both war and non-war metaphorical expressions in context, and at the same time discuss the potential adverse effects of the former and the advantages of the latter as claimed by scholars taking a critical stance. The article is organized as follows: after a general introduction on popularization in the medical domain (§1.1), the use of metaphors in dealing with disease is examined (§2), subsequently narrowing the focus to metaphors in COVID-19 communication (§2.1). After a brief discussion of study design and method (§3.1), there follows an analysis of the use of metaphorical expressions in context, looking first at non-war metaphors (§3.2), and in particular those indicated as viable in the debate, and then at war-related metaphors (§3.3). In the next section (§4), the results of the analysis are discussed and conclusions are drawn (§4.1).

1.1. Popularizing medicine

Popularizing medicine in general is a very complex task in itself (Garzone 2006, 2014; Garzone *et al.* 2019), needing to explain complicated physiological mechanisms and to refer to anatomy in its complexity and to the way various systems and tracts function, etc. But the dissemination of knowledge about illness and disease to the benefit of the general

public is especially problematic because physical disorders are also characterised by an inherently social, cultural and psychological dimension. Their very existence touches on people's feelings and deepest fears, and interferes with preconceived ideas. Diseases are not purely medical facts, but are heavily charged with cultural meanings, and are socially constructed as a function of how people understand them and how those afflicted live with them. In addition, in mass communication they are not only talked about, but also often strategically represented by communication experts and interested parties (Conrad, Barker 2010, p. S67) for various purposes, from public health policy to pharmaceutical product promotion, etc.

When the conditions whose representation is being studied are epidemic infectious diseases, there are some further specificities to be considered. As Snowden points out, epidemics are not only isolated episodes studied by specialists, but are "part of the 'big picture' of historical change and development", being crucial to understanding a whole range of "societal developments as economic crises, wars, revolutions, and demographic change" with an impact on a variety of aspects of life, such as religion, the arts, the evolution of medicine and intellectual history (Snowden 2019, p. 2).

For epidemic illnesses Washer (2010, pp. 1-2) uses the denomination "emerging and re-emerging infectious diseases" or "EIDs", given that some of them are really new (for instance, HIV/AIDS and Ebola, and now we may also add Zika and the novel Coronavirus), while for other older diseases (e.g. TB) an unexpected resurgence in incidence has been recorded in the last few decades due – amongst other things – to a newly acquired anti-biotic resistance, after a period characterised by the great illusion of the imminent eradication of all infectious diseases (e.g. by 2060: Cockburn 1963). An illusion which according to Snowden was also fostered by a perception of the proportionally declining importance of mortality and morbidity from infectious diseases vis-à-vis alternative causes of death that were on the rise, such as cardiovascular disease, cancer, diabetes, and metabolic disorders, human-made diseases such as occupational and environmental illnesses; and accidents (Snowden 2019, p. 453).

But it is a fact that towards the end of the second millennium the world saw the outbreak of new epidemics, as had not been seen since the Spanish flu pandemic. According to Washer (2010) this renewed susceptibility to infectious diseases was related to a number of factors – human demographics and behaviour, technology and industry, economic development and land use, international travel and commerce, microbial adaptation and change, breakdown of public health measures, etc.

It is interesting that in parallel with the various bouts of epidemic diseases that occurred in the early 2000s there was a revival of scholarly attention for illness communication by sociologists, linguists, discourse analysts and communication scholars, in each case focusing on a different infection, e.g. Ebola (Joffe, Haarhoff 2002; Ungar 1998), BSE or mad cow disease (Washer 2006), foot and mouth disease (Nerlich 2004; Nerlich *et al.* 2002), SARS (Wallis, Nerlich 2005; Washer 2004), avian/bird flu (Brown *et al.* 2009; Nerlich, Halliday 2007; Ungar 2008), swine flu (Nerlich, Koteyko 2012), MRSA (Washer, Joffe 2006), and Zika (Ribeiro *et al.* 2018).

Thus it comes as no surprise that the outbreak of the most serious and pervasive of all recent epidemics, COVID-19, in early 2020 was accompanied by an unprecedented communication effort in the mass media, in health and public discourse, and in the political arena, which inspired a spate of new studies on coronavirus communication.

Special issues of journals have recently been published or are in preparation, e.g. an issue of *Multilingua* edited by Jie Zhang and Jia Li on the sociolinguistics of COVID-19, stigmatizing a minoritization of certain languages in crisis communication, taking an essentialist perspective (Piller *et al.* 2020), and *Journal of Psycholinguistic Research*

edited by Art *et al.* focusing on the impact of the pandemic on language function and cognition, and the development of linguistic categories (Art *et al.* 2020). In less than a year dozens of articles were published on various aspects, authored by scholars in various disciplines, mainly linguists and communication scholars, as well as doctors. The focus is on various aspects, e.g. the denominations given to the disease and their political implications (Prieto-Ramos *et al.* 2020), with some studies also focusing on specific languages (e.g. Arabic: Haddad Haddad, Montero-Martínez 2020; Olimat 2020). An interesting collective study – prevalently by Malaysian authors – regards a whole range of possible linguistic methodologies to be deployed in exploring COVID-19 communication (Hua Tan *et al.* 2020).

But the most conspicuous aspect of COVID-19 communication is the systematic recourse to metaphors, which has been so pervasive and intensive that it has attracted most scholarly attention by anthropologists, sociologists, communication experts, researchers in cultural studies, linguists and discourse analysts, and has also been an object of public debate, as will be illustrated in section §2.

2. Metaphor and disease

The role of metaphors in the dissemination of knowledge to the general public has been widely acknowledged in the literature on popularization (Calsamiglia, van Dijk 2004, pp. 376-377; Garzone 2020, pp. 151-218), metaphor being defined "as a matter of crossdomain mappings in conceptual structure which are expressed in language" (Steen *et al.* 2010, p. 21). To account for the centrality of this trope in popularization, Conceptual Metaphor Theory (Lakoff, Johnson 1980) is especially useful given that it sees metaphors as cognitively organized so that an area of knowledge that is unknown or difficult to access for the layman is presented in terms of another domain that is cognitively familiar to readers, being part of their background knowledge or everyday experience. As Black (1962, p. 240) points out, metaphor "use[s] the better known to elucidate the less known". Thus, when metaphors are used in popularization the kind of knowledge that is usually presupposed in readers is simply a basic general socio-cultural knowledge 'of the world' on which they can rely to approach notions that would otherwise be inaccessible for them (Garzone 2020, p. 166).

Apart from this conceptual use, more recent studies have highlighted more strategic functions of metaphor, for instance in uses aimed at framing certain aspects of the objects or experience being represented (Semino 2008), a fact that Lakoff and Johnson themselves referred to already in their first, seminal book, when they noted that the choice of the source domain highlights some aspects of the target domain and tends to obfuscate others (Lakoff, Johnson 1980, pp. 10-13 and *passim*). This has been shown to be in the service of framing as a process to reflect and activate different ways of understanding and reasoning about things (Semino *et al.* 2018).

In other words, the linguistic framing of an abstract concept through recourse to metaphorical expressions "can also activate a metaphorical representation of the abstract concept and influence reasoning" (Hauser, Schwarz 2015; Landau *et al.* 2009), framing being a process that reflects and activates different ways of understanding and making sense of things (Entman 1993).

In the light of the latter idea, it appears rather meaningful and worthy of attention that recourse to metaphor should be especially frequent in discourses on such sensitive issues as illness and disease, not only because of the popularizing function it serves, but

more aptly on account of the framing effect it may have on the way people perceive and think about certain health problems.

In actual fact, consistent recourse to metaphors in dealing with illness and disease has long been an object of investigation and debate in the intellectual and public arena, as epitomized by Sontag's essays on illness (1978) and AIDS (1989), the former devoting special attention to cancer (together with TB) and extending the idea of a metaphorical framing of illness to embrace the use of illness itself as a metaphor (Potts, Semino 2019).

After Sontag, various other studies have explored the use of metaphors in talking or writing about cancer (Hommerberg *et al.* 2020; Semino *et al.* 2015; Semino *et al.* 2018), with a special propensity to rely on "martial" metaphors (Reisfield, Wilson 2004), a propensity that has been noticed and considered critically not only by linguists and discourse analysts, but also by doctors (Miller 2010; Reisfield, Wilson 2004) and psychologists (Hauser, Schwarz 2015, 2020).

While most authors express a negative view of recourse to WAR (or "military" or "martial") metaphors in patient care, Hauser and Schwarz in particular argued that the use of "bellicose" metaphors for cancer in public health information does not have any positive effect as it "does not boost intention for active agentic behaviors" (Hauser and Schwarz 2015), and also increases fatalistic beliefs about cancer prevention, failing to "motivate people to immediately see their doctor when imagining a cancer scare" (Hauser, Schwarz 2015). It is therefore suggested that when dealing with cancer patients war metaphors should be avoided or replaced with others that have a more positive framing effect, for instance the JOURNEY metaphor (Reisfield, Wilson 2004).

In a corpus-based study looking at online forum posts by 56 different contributors to a publicly available UK-based website for people with cancer Semino, Demjén and Demmen (2018) confirmed that recourse to conceptual metaphors involving WAR as a source domain is most frequent, followed by JOURNEY metaphors, which however are considered less problematic by experts. The results of their research showed that this use of WAR metaphors is not always negative, but can have contrasting effects depending on the context and the way they are used. In particular, recourse to them can be useful or detrimental as a function of patients' degree of empowerment, i.e. their degree of agency and control of events, or disempowerment, especially in cases of failure to recover where violence metaphors end up inducing guilt and frustration for something for which patients are certainly not responsible (Semino *et al.* 2015; Semino *et al.* 2018, pp. 638; 642).

2.1. Metaphor and COVID

This preference for WAR metaphors has characterised also COVID-19 communication from the very appearance of the disease on the international scene, when still little was known about its character and effects. And inevitably this preference attracted the same criticisms as had previously been levelled at their use for cancer, with interventions by doctors who denounced its drawbacks and possible adverse effects (Isaacs, Priesz 2021; Marron *et al.* 2020). According to these criticisms, WAR metaphors may be useful to communicate certain aspects as they may resonate with the general public, encouraging an 'all-in-this-together' mentality, but they may also have seriously negative effects and "often lead to feelings of disempowerment, guilt, and fatalism", given that battles are fought but can also be lost.

A clear-cut stance was also taken by linguists. In early April 2020 a group of scholars including Paula Pérez-Sobrino, Inés Olza, Elena Semino and Veronica Koller launched an initiative to promote non-war-related language on Covid-19 (Lancaster University 2020). The arguments put forth were essentially the same as those expressed

for cancer. In addition, it was argued that consistent recourse to war imagery could lead to anxiety and aggression towards (potential or real) carriers of the disease and seemed unsuitable to make people stay passively at home. In an article published in *Health Communication*, Semino (2021, p. 52) explained that the WAR metaphor may have been to some extent appropriate at the onset of the pandemic, but subsequently it had become "potentially counterproductive", fostering fatalism and thus weakening prevention actions. When not applied to a collectivity but to the single individual, it may determine the attribution of guilt to patients who do not recover, and may frame lack of recovery or death as a defeat.

A critical debate on the pros and cons of the consistent recourse to war metaphors was also hosted by various news outlets, in most cases obviously prompted by the stance taken by the Lancaster group. It can be useful to look at the arguments discussed by journalists. If recourse to war metaphors can be useful to communicate the gravity of the public-health crisis, and convince citizens to accept sacrifices, at the same it may generate fear, anxiety and panic and a sense of loss of control (Levenson 2020; Serhan 2020). It promotes national cohesion, but patriotism may have divisive effects in a global perspective, at a time when, on the contrary, an internationalism of solidarity would be needed (Musu 2020; Schwobel-Patel 2020). Insistence on the idea of fighting an enemy virus infiltration also lends itself to the medicalization of prejudice resulting in the stigmatization of minorities (Tharoor 2020). In addition, representing the pandemic as an out of the blue emergency displaces the blame from governments who have failed to take adequate prevention and coping measures (Levenson 2020). A further drawback is that the idea of a nation at war can be used by political leaders to legitimize disproportionately authoritarian measures and acquire broad and extraordinary powers (Levenson 2020). One last observation regards a frequently relied on entailment (Gibbs, Ferreira 2011) of the WAR metaphor that extends it to healthcare workers, and equates doctors and nurses with soldiers. But – it is objected – there is the important difference that healthcarers do not have an obligation to lay down their lives when so ordered, so they can refuse treating if their lives are placed at risk, especially when PPE (Personal Protection Equipment) is inadequate (Ackerman Detsky 2020).

In consideration of what they deemed to be the counterproductive effect of recourse to war metaphors, the Lancaster group launched an appeal to find non-war-related metaphors "which encourage people to stick to the rules while enabling them to have hope" (Lancaster University 2020), and to collect such alternatives by adding them to an open source document under the #ReframeCovid hashtag[1] (Olza *et al.* forthcoming).

But apart from this "metaphor crowd-sourcing initiative", researchers made their own proposals for metaphors they thought adequate and free of adverse effects, as the Lancaster group had done for cancer communication, an initiative that had led to the publication of a menu of alternative metaphors (Linguistics and English Language at Lancaster University 2019).[2]

The alternative metaphors recommended for COVID-19 communication in the original press release are FOOTBALL GAME, TANKER and GREEN SHOOT. A similar proposal came from Wicke and Bolognesi (2020) who analysed discourses around COVID-19 on Twitter, confirming the prevalence of the WAR metaphor especially for direct treatment of the virus, but not for other aspects like social distancing, and proposed three alternative figurative frames, MONSTER, STORM and TSUNAMI. In her 2021

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[1] Instances of alternative metaphors can be added to a shared document available at https://sites.google.com/view/reframecovid/home?authuser=0. Unless otherwise indicated, all websites referred to in this study were last visited on 01.02.2021.

[2] http://wp.lancs.ac.uk/melc/files/2019/10/Metaphor-Menu-for-People-Living-with-Cancer-A4-Leaflet.pdf.

study Semino proposes FIRE as the most suitable replacement metaphor, and at the same time recommends the use of a diversified range of other metaphors relating to various domains, instead of the military ones.

Against this background, this study looks at the use of metaphors in discourses on COVID in print and online news outlets in order to answer the following research questions:

- How frequent is the use of alternative metaphors recommended by the scholars who have taken a stance in this respect (Lancaster group, Semino, Wicke and Bolognesi) and in which contexts do they appear?
- How are war-related metaphors actually deployed in the news, including print newspapers and online news outlets?
- Does the analysis of examples from actual usage confirm the potential adverse effects of recourse to war metaphors pointed out in the scholarly literature and in various news articles?

3. Analysis

3.1. Study design and method

For this purpose, a corpus consisting of three small sub-corpora for a total of about 587,000 tokens has been compiled with Sketch Engine (https://www.sketchengine.eu/), which has been used for the subsequent analysis.

The first sub-corpus (Web Coronavirus corpus) comprises 162 texts obtained from the web using four seed words – *coronavirus, COVID-19, epidemic, pandemic* – for a total of 244,606 tokens, 21,430 types. The texts come from various online news outlets and magazines (among them: foxnews.com, theconversation.com, thehill.com, time.com, msn.com, cnn.com, www.972mag.com, www.theatlantic.com, etc.), some institutional websites (e.g. https://www.ssa.gov/, weforum.org, news.un.org), blogs, opinion websites, etc., being highly diversified in terms of genre and discursive approach. The other two sub-corpora are more specific and uniform, consisting of news articles published in the *Guardian* and in the *Times* during two different three-month periods, respectively in the early stages of the pandemic, from 20 February to 20 May 2020 (Febr-May News corpus), and at a later stage during the so called "second wave", from October 1, 2020 to January 8, 2021 (Oct-Dec News corpus). Each sub-corpus includes 180 news articles, 90 from *The Guardian* and 90 from *The Times*. The Febr-May sub-corpus consists of 165,237 tokens, 15,660 types; the Oct-Dec sub-corpus consists of 177,746 tokens, 18,702 types. Compared with the Web sub-corpus, these two sub-corpora are more consistent in terms of genre, contents (comprising only news) and make it possible to compare COVID-19 coverage respectively in the first and the second wave of the pandemic. Furthermore, for comparison and control purposes one of the Sketch Engine preloaded corpora was used, the English Web 2015 corpus, consisting of 13,190,556,334 tokens and 46,275,610 types.

Although quantitative data were also considered, the analysis was mainly qualitative and was carried out using the Concordance and Word Sketch tools of Sketch Engine, and having recourse to close reading of relevant texts wherever expedient.

The analysis focused on lexical units that are potential vehicles of COVID-19 metaphors belonging to the "war" semantic field and on a selection of words related to the "non-bellicose" metaphors recommended in articles taking a stance against military language. Concordances were obtained for such lexical units, and metaphorical uses were

identified with the Metaphor Identification Procedure (MIP) devised by the Pragglejaz Group [3] (2007), based on the comparison between the lexical unit in the context investigated and its current–contemporary meaning in other, different contexts: the unit can be classified as metaphorical if its "contextual meaning contrasts with the basic meaning but can be understood in control and comparison with it" (Pragglejaz Group 2007, p. 3). Among metaphorical expressions also similes were included as "metaphor-related words" according to Steen *et al.*'s (2010, p. 58) categorization that considers similes as forms in which "indirectness in conceptualization through a cross-domain mapping is expressed by direct language".[4]

All non-metaphorical uses of the lemmas analysed were expunged. Therefore, all data analysed here (cf. Table 1 in Annex below) refer to metaphorical uses of the expressions involved, and not to the overall frequency count. The identification of metaphorical occurrences was followed by an analysis of collocations, using mainly the Word Sketch tool.

While results will be commented on in detail in the next section, in very general terms it can be stated that overall recourse to metaphors in the Web Coronavirus sub-corpus is four times more frequent than in the two News sub-corpora. The relative dearth of metaphorical expressions in the news sub-corpora can be accounted for with the prevalence of plain reporting in this journalistic genre, with a more narrative / informative approach, with limited recourse to figurative language apart from reverberations from official declarations and institutional statements, as is confirmed by the fact that in many cases metaphors are found in quotations and reported speech. In contrast, the online outlets prevailing in the Web sub-corpus feature more commentary and opinion articles, and this leaves ample scope for the use of metaphors and other figures of speech. In the next two sections an extensive examination of the results of the analysis will be provided. It can also be added that as far as the two news sub-corpora are concerned, the Febr-May texts feature 30% more metaphorical uses than found in the Oct-Dec sub-corpus (144 against 96). To explain this, the hypothesis is that in the initial stages of the pandemic it was necessary to come to terms with the disease and with the new situation to be coped with, a task for which metaphors can be useful, as predicted by Conceptual Metaphor Theory.

3.2. Analysis: non-war metaphors

A search for words that may provide evidence of the recurrence of metaphorical expressions belonging to the "non military" domains proposed by Wicke and Bolognesi (2020), Semino (2021) and other researchers gave disappointing results.

A search for words related to the MONSTER and TANKER figurative frames yielded 0 results. The search for lexical units related to the FOOTBALL GAME metaphor was more successful, with one hit of *football game* in a quotation from WHO director-general Tedros Adhanon:

1)   "You can't win a *football game* only by defending, "he wrote on Twitter. "You have to
       attack as well" (Serhan 2020).

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[3] Researchers in the Pragglejaz Group are Lynne Cameron, Alan Cienki, Peter Crisp, Alice Deignan, Ray Gibbs, Joe Grady, Zoltán Kövecses, Graham Low, Elena Semino, and Gerard Steen.

[4] In their linguistically-oriented extension of the Pragglejaz Group's method of metaphor identification, which they call MIPVU – with VU standing for *Vrije University* – Steen *et al.* (2010, p. 21) "operationalize metaphor as indirectness by similarity, or comparison", but among metaphorical expressions they also "include direct expressions (other forms of metaphor such as simile, analogy, and so on) and implicit expressions (by substitution and ellipsis)".

It is noteworthy that in this only occurrence the ACTION AGAINST COVID IS A FOOTBALL GAME metaphor is expressed by means of war-related metaphorical verbs: *win, defend, attack*.[5]

Evidence of recourse to the FIRE metaphor, which is the one specifically recommended and extensively discussed with examples in Semino (2021), is also rather limited. In the Web Coronavirus sub-corpus the word *fire* occurred 30 times, but none was related to COVID-19, neither were there any instances of related lemmas like *burn, extinguish, embers, fire-fighter, arson, arsonist*. There actually was one occurrence of the verb *blaze* with *coronavirus* as subject, in an article talking about a COVID-19 victim who was a holocaust survivor:

2)   Malvina died in Toronto on Nov. 10, 2020, as the coronavirus *blazed* through her retirement home. (Lytvynenko 2021)

Also in the *Guardian*-and-*Times* sub-corpora the occurrences of words related to the FIRE metaphor were sparse, 3 in the Febr-May period and 2 in the Oct-Dec sub-corpus. In the following example *fire* is the vehicle to represent the outbreaks of the epidemic:

3)   Done right, contact tracing is a way to stamp out individual *fires* before they become unstoppable conflagrations. (*The Times* 2020)

It is interesting that *fires* is accompanied by two words that are actually entailments of the FIRE metaphor, *stamp out* and *conflagrations*, thus generating a real metaphorical cluster.[6] It is also interesting that the verb *stamp out*, whose original meaning was "to extinguish (a fire) by trampling on it",[7] has now become fossilized and is currently used to mean *to extirpate, to suppress, to eradicate*, losing its specific reference to fire, although it can still collocate with the word. No occurrences were found of *firefighter, extinguish, arsonist, blaze*, while *burn* occurs only few times (1 in the Febr-May sub-corpus and 4 in the Oct-Dec sub-corpus), only once with reference to the pandemic as a whole, in a comment on a prediction that went unheeded:

4)   It happened: *Troy is burning* (Chivers 2020)

In its other occurrences *burn* appears as *burn out*, used to refer to the exhaustion of healthcarers or to the conclusion of previous epidemics (Ebola, Spanish flu), as respectively in examples (5) and (6):

5)   The urgency for the vaccine in those countries is palpable, with hospitals and morgues struggling to manage the number of deceased, and healthcare workers who *were burning out*. (Guardian Staff and Agency 2020)

6)   The greatest pandemic of the 20th century [Spanish flu] *burnt out* and the world moved on. (Whipple 2020)

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[5] In all cases the *lemma* function of Sketch Engine was used which finds all word forms of the items being searched for. Therefore in this study when referring to words being searched for no wild cards are added.

[6] In Ivie's model a cluster is a set of vehicles with similar "entailments." (Ivie 1987, p. 167). Each cluster can be tentatively assumed to represent one of the "metaphorical concepts" featured in a piece of discourse, and the clusters together constitute what Lakoff and Johnson call a "system of metaphorical concepts" (Lakoff, Johnson 1980, pp. 289-292).

[7] "stamp, v." *OED Online*. Oxford University Press, December 2020. Web. 19 January 2021.

Among the fire-related words that were actually found in the corpus, there was *spark* which occurred once in the Web Coronavirus sub-corpus, twice in the Febr-May News sub-corpus (always as a verb) and none in the Oct-Dec sub-corpus. Here are two examples of the use of the verb *spark*, one from each sub-corpus, both collocating with *outbreak*:

7)   Fearful that the initial denial and mismanagement of the outbreak could trigger social unrest, Beijing has now mounted an aggressive domestic and global propaganda campaign to tout its draconian approach to the epidemic, downplay its role in *sparking* the global outbreak, and contrast its efforts favorably against those of Western governments and particularly the United States. (Nossel 2020)

8)   Concern that visiting athletes, fans and officials could *spark* a fresh outbreak and rising costs attributed to the delay have combined to turn public opinion against the Games. (McCurry 2021)

Another fire-related metaphorical verb which is found in two of the three sub-corpora (Oct-Dec and Web Coronavirus), although with low frequencies (two occurrences in each sub-corpus), is *fuel*, e.g.:

9)   Epidemiologists fear household mixing at Christmas coupled with a new and more infectious strain is *fuelling* the second wave. (McLaughlin, Puttick 2020)

Thus it can be said that recourse to FIRE metaphors is rather infrequent, which seems to indicate that they are not part of the repertoire most commonly associated with infectious diseases, or only minimally so.

Other metaphors that are recommended as substitutes for WAR metaphors are those related to natural disasters. One that is mentioned in various studies is THE CORONAVIRUS EPIDEMIC IS A TSUNAMI metaphor, which occurs 4 times in the News sub-corpora (one in the Febr-May sub-corpus, 3 in the Oct-Dec sub-corpus) and none in the Web Coronavirus sub-corpus. Here is an example:

10)   "There are no more surgeons, urologists, orthopedists, we are only doctors who suddenly become part of a single team to face this *tsunami* that has overwhelmed us," wrote an Italian physician in March. (Dalton 2021)

Few are also the occurrences of *storm*, 10 in all (4 in Febr-May, 1 in Oct-Dec and 5 in Web Coronavirus). In the following example the coronavirus crisis is seen in its perturbing effects on the economy:

11)   But his [Fundsmith CEO's] success in weathering the *storm* better than most is a strong argument for holding funds like this that invest very differently to the index, as well as holding low-cost index trackers. (Atherton 2020)

Quite interestingly, in one of its few occurrences *storm* becomes *shitstorm*:

12)   I've always adored Bernstein and Sondheim's Somewhere from West Side Story. And never has it felt more appropriate than through the *shitstorm* of the pandemic and political populism. (Guardian Music 2020)

Certainly, all these metaphors do not use concepts and expressions related to war, but for this they do not sound less alarming as they convey the idea of being at the mercy of some kind of power that is overwhelming and difficult to avert.

Among non-war metaphors dealt with by scholars in relation to COVID-19 an interesting one is *curve*, also as *epidemic curve* (sometimes shortened as *epi curve*), with

obvious reference to charts depicting the course of the epidemic. It often occurs in the collocation *flatten the curve* (18 occurrences overall)*,* also as *bend the curve* (5 occurrences, all in the Web Coronavirus sub-corpus). A positive characteristic of this kind of expression is that it is totally neutral, referring to a domain characterised by a purely quantitative conceptualization. See the following instance:

13)   Speaking anonymously, one White House official told the Associated Press the taskforce had
        concluded existing efforts to slow the spread "are inadequate and must be increased to *flatten
        the curve*." (Pengelly 2020)

In actual fact a problem with this figurative expression is that it does not seem to be really metaphorical because between "acting against coronavirus" and "flattening the curve" the relationship is not one of substitution, but rather of contiguity, that is, metonymical, and more precisely one of cause and effect: the flattening of the curve is a consequence of the containment of coronavirus cases.

In the light of the foregoing, it can be stated that in the corpus investigated only few of the alternative metaphorical domains indicated by scholars as appropriate substitutes for war metaphors are relied on frequently, while many of them do not appear at all. Their viability and the actual advantages given by their use instead of military language will be discussed in section §4 below, after analysing the contexts of use of war metaphors in the next section.

3.3. Analysis: war metaphors

A quantitative analysis of the three sub-corpora shows that, in spite of the bad press it has received since the beginning of the pandemic, the ACTION AGAINST COVID IS WAR metaphor with its entailments is still the most widely tapped in print and online journalism. Here we shall now examine some of its uses in context.

An interesting aspect of the analogy systematically made between war and response to the pandemic is that in several cases in the corpus *war* does not appear only in metaphorical expressions, but also in explicit similes, thus somehow offering an explanation of the rationale underlying its metaphorical use. In the next example, for instance, the advocated response to the pandemic is compared to the reaction to World War II:

14)   We will need, in short, a response *like that of the nation during World War II* — a
        willingness to set personal interests aside and to accept the costly increase in state capacity
        needed to meet the challenge when hundreds of thousands of lives are at stake. (Karabel
        2020)

In other cases the attempt to control the pandemic is compared to the Vietnam war, as in the following pessimistic statement:

15)   Forget WWII, *the unwinnable war on Covid is more like Vietnam* (Grant 2020).

Another interesting simile is found in *The Times*, in an integrated quotation from Bill Gates:

16)   The global fight against the virus is, he [Bill Gates] says, *like a world war*, "except in this
        case we're all on the same side". (Thomson, Sylvester 2020)

Here the expression "world war" is used in a simile (and therefore literally), but is anticipated by the metaphorical quasi-synonym "global fight", followed by an observation about "being all on the same side", which somehow provides evidence against the many critical voices pointing at the potential international divisiveness of recourse to war imagery.

But in most cases it is the ACTION AGAINST COVID-19 IS WAR metaphor that is relied on, being especially frequent in the Web Coronavirus sub-corpus, as in the following example:

17)   But if the battle to contain and defeat the coronavirus *is war, it's a civil war*. (Loth 2020)

or in the following account by a doctor talking about the situation in Italy during the first wave, in an article describing the process that eventually led to the development of a vaccine:

18)   "Doctors there were describing it as *a war zone*," Professor Landray said. (Blake 2020)

The following example is especially interesting because of the stance it takes, extending the war metaphor to a qualitative categorization of war action methods:

19)   As we battle the coronavirus pandemic, and heads of state declare that we are "*at war*" with this contagion, the same dichotomy applies. (Katz 2020)

The dichotomy referred to is that between war based on "diffuse hostilities" and war based on "the precision of a 'surgical strike'", two action methods that are metaphorized in order to discuss the possible approaches to be taken by governments in their measures against the pandemic.

In some less frequent cases, the metaphor does not refer to humans fighting coronavirus, but to the virus attacking us:

20)   To win its *war against Americans*, COVID-19 must infect and sicken lots of Americans each day (Hanson 2020).

In this example the underlying WAR metaphor is THE COVID-19 EPIDEMIC IS WAR (AGAINST US), as in the following excerpt where the virus is represented as an active party and a whole cluster of metaphorical entailments is deployed: the coronavirus is the "combatant", it is "waging a war" and the world becomes "a battlefield":

21) Is the coronavirus pandemic a *combatant* that is *waging an offensive wa*r by turning the entire world into a *battlefield*? (Aboueldahab 2020)

As was the case with cancer, the WAR metaphor has also been applied to individual patients fighting COVID-19, and this could be a critical issue in cases where the people involved have died or not recovered. But in the following example the patient's battle has had a happy ending:

22)   CORONAVIRUS FIGHT 'MORE TRAUMATIC THAN THE WAR' FOR 101-YEAR-OLD WW2 VETERAN […] He spent more than two weeks *battling* for life […]. Paul compared *fighting* the virus to the trauma of fighting in the Second World War. (Merrifield 2020).

In the latter example the military metaphor is not realized by the word *war*, but rather by means of two war-related words, *battling* and *fighting*.

Lingue e Linguaggi

This reflects the prevalence of the use of a range of war-related words with respect to the metaphorical use of the word *war* itself, which is a clear tendency in the whole corpus. For instance, in the Febr-May sub-corpus *fight* has 46 hits against 16 of *war*, in the Oct.-Dec sub-corpus 14 against 4 and in the Web sub-corpus 309 hits against 225. In the latter sub-corpus also *enemy* has nearly as many occurences as *war* (199). This trend applies to many other metaphorical expressions based on entailment, e.g. *combat, enemy, defeat, foe, attack, hero, defeat,* which have more limited frequencies, but collectively contribute to a rather substantial realization of the ACTION AGAINST COVID IS WAR metaphor, often generating metaphorical clusters (Ivie 1987).

Amongst these war-related words, worthy of special attention is *fight*. As pointed out above, it has a noticeable frequency in all three sub-corpora, and in particular in the Web sub-corpus, both as a transitive verb (as in Example 23 below) and (less frequently) as a noun (Example 24):

23)   Ministers are pledging "whatever it takes" to *fight* the virus. (Smyth 2020).

24)   The number of personnel helping the *fight* against the virus will soon be more than at any point during the pandemic. (Bunkall 2021)

Other most common collocations of the verb *fight* are *fight a war, fight the pandemic, fight the outbreaks, fight a common foe, fight an enemy*.

In many cases, *fight* is part of an extended metaphorical image where it co-occurs with words like *battle, enemy, combat*, as in the following example:

25)   As a nation, we are currently locked in *battle against an enemy* that we can only *fight* together, living by the mantras of *combat*. (Crenshaw 2020)

It is interesting to note that today *fight*, in spite of its obviously martial original meaning (cf. Old English *feohtan*),[8] is systematically used in a figurative or transferred sense, meaning *contend, strive, struggle*, *gain by struggle*, as will be discussed in section §4 below.

Its near-synonym *combat*, albeit much less frequent, appears in all three sub-corpora (with 10 hits in the Febr-May sub-corpus, 4 in the Oct-Dec sub-corpus and 36 in the Web Corona sub-corpus). As observed for *fight*, also *combat* is today used most often with a figurative meaning. It is interesting to compare in particular the contexts of occurrence of these two near synonyms in their function as verbs referring to COVID-19. While *fight* is used with a wide range of objects (*war, battle, foe, infection, contagion, bacterium*, etc.), only some of them are in common with *combat* (*COVID, coronavirus, pandemic, epidemic, enemy, outbreak, disease, crisis*), and very few are used only with *combat* (*symptom, strain, spread, apathy*), never collocating with *fight* in the corpus:

26)   Units and facilities around the installation have enhanced their sanitation procedures in order to *combat* the possible spread of the Coronavirus. (Magbanua 2020)

Another lemma deserving attention is *enemy*, which is certainly a military word, but in no dictionary is its military meaning dealt with as primary. For instance, in the *OED* the military meaning of "enemy" (defined as "of or pertaining to a hostile army or nation; standing in the relation of an enemy, hostile") is preceded by other 6 meanings or submeanings, its primary meaning being "an unfriendly or hostile person". In *Merriam*

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[8] Cf. "fight, v.", *OED Online*. Oxford University Press, December 2020. Accessed 01.21.2021.

Webster, it is the third meaning dealt with (out of three meanings categorized), defined as "a military adversary", with its primary meaning being "An unfriendly or hostile person".[9]

See this example where *enemy* appears with three of the adjectives with which it most commonly occurs – *common, invisible, unique*:

27)   "This is a *common invisible enemy* and therefore, we need common and coordinated efforts by NATO allies," Stoltenberg told CNBC's Hadley Gamble. (Ng 2020)

In 14 cases *enemy* collocates with the verb *defeat*, 13 times as object (e.g. *defeat the invisible enemy, defeat this unique enemy*) and once as subject of a passive verb form:

28) His is a worldview that is based on fighting an enemy and putting everything aside until the *enemy is defeated*. (Konrad 2020)

But in most other cases (37 out of 43) *defeat* is used in the active to refer to the eradication of the virus, as in the following example:

29) But if we stay calm and rational, we can easily *defeat the enemy*, whose reputation is likely far scarier than its reality (Hanson 2020).

Symmetrically *win* and *victory* appear in the Febr-May sub-corpus (with respectively 1 and 4 hits) and, more substantially, in the Web Coronavirus sub-corpus (respectively 31 and 10 times). It is quite meaningful that neither lemma is found in the Oct-Dec sub-corpus, an evident sign that the early-day illusion of a quick victory over the virus had been shattered by its resurgence in the second wave of the epidemic. The following example, published in early June 2020, embodies the illusion that was to be destroyed at the end of Summer:

30)   We are *winning the fight* against the invisible enemy. (Netburn 2020)

Three times in the corpus *win* is used with COVID-19 as subject, as can be seen in example 20 above, while in all the other 36 cases it always refers to man getting the better on the virus.
In contrast, the word *attack* is used more frequently to refer to the infection and spread of the virus. This is true for 8 times out of 10 in its use as a noun, with expressions like *virus's attack on the body, the sudden attack of this kind of epidemic*, etc., while of the 15 occurrences of *attack* as a verb 8 have *Coronavirus* as subject or agent, e.g.

31)   Now *we've been attacked* by a microscopic enemy, but the threat is just as grave. (Bossie 2020)

while in the others *attack* refers to measures against the virus, especially in terms of therapies:

32)   There are no specific treatments for COVID-19 as yet, though a number are in the works including experimental antivirals, which can *attack* the virus […] (Ryan 2020)

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[9] Cf. "enemy, n.", *OED Online*. Oxford University Press, December 2020. Web. 22 January 2021; "enemy, n.", *Merriam-Webster.com Dictionary*, https://www.merriam-webster.com/dictionary/enemy (22.01.2021).

Again the metaphorical use of *attack* when talking about diseases afflicting humans is widely consolidated, as also indicated in the relevant entry of the OED of *attack* as a verb: "Of a disease or other disorder: to act harmfully on, to afflict; to begin to affect; to cause suffering or harm to."[10]

Some final observations are now in order about an entailment of the WAR metaphor that has attracted a lot of negative criticism: if ACTION AGAINST COVID IS WAR, then HEALTHCARE WORKERS ARE SOLDIERS, HEALTHCARE WORKERS ARE HEROES.

In actual fact, in the corpus the frequency of *soldier* is really very low, as it occurs 8 times, all of them in the Web Coronavirus sub-corpus, e.g.:

33)   *The soldiers* in this fight are our health care professionals (Musu 2020).

A slightly higher frequency is recorded for *hero,* with 6 hits in the Febr-May sub-corpus, 14 in the Oct-Dec sub-corpus and 6 in the Web Coronavirus sub-corpus, a distribution that is actually anomalous with respect to the other lemmas analysed, which tend to be more numerous in the Web sub-corpus, if only because of its size. The word is used to refer to healthcare workers, but also to vaccine researchers, as in the following example:

34)   Truly, they [vaccine researchers] are the unsung *heroes* of 2020. (van Tulleken 2020)

A parallel entailment is the idea of healthcare workers being on the *frontline*, a lemma which has a relatively high frequency in all three sub-corpora, 25 hits in the Febr-May sub-corpus, 20 in the Oct-Dec sub-corpus and as many as 185 in the Web Coronavirus sub-corpus.

See the following example where it emerges clearly that the staff on the frontline are those working directly with patients:

35)   This includes *frontline staff* working under tremendous pressure looking after Coronavirus patients and also those working tirelessly behind the scenes to support them. (Merriefield 2020)

But in spite of its military origin the frontline metaphor is today rather weak, as will be discussed in section §4, and this explains why in emotionally loaded contexts it co-occurs with the word *trench*, which still carries with it a strong military connotation, and in this case also with *battle*:

36)   Breen's father, who confirmed his daughter's death to CNN, also compared her work as an ER doctor to a *battle*, saying, "She went down in the *trenches* and was killed by the enemy *on the front line*." (Blanchard 2020).

It is meaningful that all four instances of the word *trench* in the corpus co-occur with *frontline*, for the obvious purpose of reinforcing its military connotation to generate an extended metaphor, as in the following example:

37)   We need these tests at the *frontline* to work out who should be, and who should not be, in the *trenches* (Hunter 2020).

Similarly, in the following example, *frontline* is used with other "military" words – *troops, protective gear, ammunition, heavy equipment*:

[10] "attack, v." *OED Online*. Oxford University Press, December 2020. Accessed 01/22/2021.

38)   The *frontline troops* are running out of *protective gear* (PPE), *ammunition* (beds) and *heavy equipment* (ventilators) (Hunter 2020).

In the last three examples, as in many others examined in the analysis, the metaphorization of a war-related expression seems to be to some extent conventionalized, so much so that in order to bring out its military connotation other more strongly connotative words co-occur, to reinforce its figurative strength thanks to their much less "worn out" meaning.

4. Discussion

The analysis shows that in articles and posts dealing with the coronavirus pandemic, war metaphors and their entailments are virtually still prevalent, indeed ubiquitous. In the corpus also some instances of the metaphors proposed by scholars as possible alternatives have been found, but they appear far more sporadically, with only few instances for each of them also in texts published more recently. In this way, there actually is an assortment of metaphors being deployed, as advocated by Semino (2021), but alternative metaphors are really a minority.

If war metaphors die hard, in the light of the analysis above it can be interesting to try and understand whether all the dire effects often attributed to them in the scholarly literature and in various news articles are actually justified in linguistic and discursive terms.

As a preliminary to the discussion, it is important to discriminate between the programmatic use of war metaphors by governments, and especially the US government in the person of Donald Trump, which of course also reverberated in the media, and the spontaneous – and often conventional – recourse to war metaphors in news articles and in posts on online news and opinion outlets.

In a way, the starting point of the fortune of war-based metaphors – and, it could be argued, of the negative criticisms they have attracted – was Trump's declaration that the fight to slow the spread of COVID-19 was "our big war" and his casting himself as a "wartime President" (Bennet, Brenson 2020). This may indeed have had an impact on how people, and especially Americans, framed the epidemic, fostering a hostile and war-mongering attitude towards other countries, and especially China, as confirmed by the fact that the President systematically referred to Coronovirus as "the Chinese virus". Similarly, other political leaders in various countries took advantage of the war metaphor to attribute themselves hitherto unimaginable powers, but authoritarian attitudes would have been amply justified even only by the state of "extraordinary emergency" proclaimed virtually everywhere.

But apart from public communication on the pandemic, in most other cases the language used in the news and, more in general, in the media relies on a repertoire of metaphorical expressions that are commonly used also in a number of other contexts, and it has to be considered that frequency of occurrence, together with recurrent (and therefore predictable) phraseological configurations, is considered to be a proof of conventionalisation (Philips 2017, p. 223). This is an important aspect, as conventional metaphors, with their predictability, are much less *resonant* (i.e. less "strong") than novel or unusual metaphors (Black 1977, pp. 239-240).

This is true, for instance, of the metaphorical use of war-related words. The word *war* itself, both as a noun and (more rarely) as a verb, goes into many metaphorical expressions used in everyday conversation, often partly lexicalized or on the way to

lexicalization, such as *war paint, war chest, wardriving, a war of words, a war of nerves, to make war on someone, to have been in the wars, to declare war on someone* or *something*, etc. It has also been widely exploited in public communication when talking about sets of policies or concerted efforts to contrast certain problems, e.g. *war on drug, war on obesity, war on poverty*, etc. It is systematically used to describe the efforts to stop the spread of a disease, not so much with reference to individual measures, but rather to packages of measures aimed at bringing a given phenomenon under control, with expressions like *war on cancer, war on diabetes, war on disease, war on obesity*, all phrases that are obvious antecedents to *war on epidemic, war on coronavirus*, etc. used to refer to the COVID-19 pandemic.

Also words like *fight* and *combat* are commonly relied on to talk about reactions to diseases. For instance in the *English Web 2015* corpus, which is used here for comparison and control being considered representative of common usage on account of its over 13 billion tokens, among the most frequently found object complements for *fight* there are *cancer* (8,913, 0.58 pm), *disease* (8,347, 0.54 pm), *infection* (4,616, 0.3), *AIDS* (3,598, 0.23 pm), *HIV* (1,970, 0.30 pm), *obesity* (1,493, 0.1 pm). Similarly among the frequent objects of the verb *combat* there are *disease* (4,663, 0.3 pm), *HIV* (1,810, 0.12 pm), *obesity* (1,568, 0.1 pm), *epidemic* (1,130, 0.07 pm), *infection* (995, 0.06 pm), *malaria* (651, 0.04 pm). This shows that recourse to "bellicose" metaphors in talking about disease and health emergencies is very common, so much so that in many cases their use has become conventional and predictable.

Another element to be considered is that, apart from the health domain, many military words are commonly used as metaphors to deal with a variety of topics. In the *English Web 2015* corpus, only considering the lexemes *fight* and *combat*, relevant expressions – based on the collocational profile of these two verbs obtained with the Word Sketch Tool – are *combat unemployment, combat desertification, combat trafficking, combat absenteeism, combat inflation, combat stress, combat frustration, combat pain, fight fire, fight terrorism, fight discrimination, fight global warming, fight racism, fight industrial decline, fight temptation, fight the blush, fight for one's principles*, etc.

Something similar can be said of the expression *frontline* (or *front line*), with 93,112 occurrences (8.05 pm) in the same control corpus where, in spite of its surely military origin, it is widely used figuratively in many other contexts to indicate "the most advanced, responsible, or visible position in a field or activity" (Merriam Webster),[11] for instance with reference to employment (e.g. *frontline staff, frontline workers, frontline legal services*), but also in other diversified contexts, e.g. *frontline communities, frontline solidarity, frontline research*.

It is therefore obvious that, when used metaphorically, many of these "military" words do not carry with them a marked "bellicose" connotation, having become conventional to a greater or lesser degree. Incidentally, many of them are also used metaphorically in some of the domains that have been proposed as viable sources of substitutes for war-related language, for instance in games and sports (Charteris-Black 2004, pp. 113-134), and in firefighting (a synonym for the latter word being essentially unavailable in the English language). As Hanks (2006, pp. 22) argues, some metaphors are less metaphorical than others being frequent and well-established and thus requiring little effort to be interpreted. When this is the case the weakness of the metaphor is confirmed by the fact that "other, related terms and concepts (significant collocates) are brought into

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[11] "frontline n.", Merriam Webster.com Dictionary, https://www.merriam-webster.com/dictionary/frontline (01.25.2021).

play" to reinforce them (Hanks 2006, p. 31), as was the case of the word *frontline* used in combination with *trench*.

Turning attention to the idea that the patriotic overtones of war metaphors as used by political leaders may trigger hostile feelings against other nations, of course in certain cases it has been confirmed by facts (think of the relationship between the US and China), but has also been to some extent contradicted by other facts, for instance the novel atmosphere of constructive cooperation within the EU, as proved by the introduction of the *Next Generation EU* instrument and the collective strategy of purchasing vaccines.

Instead, on an individual level, it is absolutely true that the epidemic has fostered an increasing person-to-person diffidence, indeed sometimes even hostility towards others as potential carriers of the infection. But this cannot be blamed specifically on war metaphors, having been to a large extent fueled by social distancing prescriptions and warnings against personal contacts.

Last but not least, the idea that recourse to military metaphors may increase fatalism, anxiety and a sense of helplessness and loss of control in individuals may be to some extent well-founded, but it can be argued that most of the alternative metaphors proposed by scholars criticising war metaphors, and especially those related to natural disasters, are even more potentially prone to inducing a sense of overwhelm and panic: being caught in a tsunami or in a raging storm, or trapped in a blazing fire leaves little scope for self-defence or even escape, and is certainly likely to generate a sense of powerlessness and anxiety.

4.1. Concluding remarks

To conclude, from an ideological viewpoint it is certainly regrettable that in talking about the pandemic governments and institutions have had systematic recourse to metaphors related to war, which is a state of things that most Western countries condemn and admit only as a last resort, also stigmatizing the violence that goes with it. By the same token, it is deplorable that in some cases governments' messages about the pandemic have used tones that may be perceived as instigating to violence and aggression. All the more so as in the governmental and institutional sphere the use of language is consistently under control and results from deliberate strategies, which means that the deployment of bellicose metaphors could be avoided or at least metaphors could be used selectively. A case in point is Angela Merkel and other top level German politicians who in the course of the pandemic have ostensibly avoided the use of any possible war metaphors in their speeches and statements (Paulus 2020).

But in more general terms, it is a fact that in the news and, more in general, in the media and in everyday conversations recourse to war-related metaphors and war-related words in metaphorical expressions is really very common, and not only to talk about disease and treatment, but in a variety of different domains and registers, so much so that in most cases the extra-meaning brought by the vehicle to the conceptual metaphor is worn out by familiarity, given that, as Philips (2017, p. 226) points out, "Repetition and reuse of a metaphor lessen its impact". Thus, there are reasons to believe that in discourses about COVID-19 many war-related metaphors may be hardly perceived as bellicose any more as in most cases they have to various degrees lost their resonance in terms of martial connotation, becoming conventional and highly predictable.

As to the possibility of inducing people to give war-related metaphors up, at least partially, and replace them with other metaphors considered to be more "innocent", data tell us that, apart from the lesser or greater viability of the alternatives proposed, at this point military metaphors are so deeply ingrained in the current linguistic repertoire in a

number of domains, and especially when talking about disease, that uprooting them would not be easy. Therefore, if the campaign against the use of war metaphors has any chance to succeed in anything, it is in convincing political authorities to avoid them, but spontaneous language use is certainly much harder, if not impossible, to control.

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References

Aboueldahab N. 2020, *Pandemic Politics: Coronavirus: War-talk or Crisis Talk?*, in "Brookings", 22 April.

Ackerman E. and Detsky A.S. 2020, *Why Comparing the Fight Against COVID-19 to War Is Ethically Dangerous*, in "Time", 7 May. https://time.com/5833421/coronavirus-war-comparison/.

Art J.R., Lamela M., Faber A. and Amrami Y. 2020. *Special Issue on the COVID-19 Pandemic and Psycholinguistic Research: A Call for Papers*, in "Journal of Psycholinguistic Research" 49, pp. 351-354.

Atherton M. 2020, *Worried by dividend cuts? Not me. Terry Smith's battle cry to investors; The millionaire fund manager is sticking to his tactics despite the fallout from the Covid-19 pandemic*, in "The Times", 25 April.

Black M. 1962, *Models and Metaphors: Studies in Language and Philosophy*, Cornell University Press, Ithaca NY.

Black M. 1977, *More about Metaphor*, in "Dialectica" 31 [3-4], pp. 431-357.

Blanchard M. 2020, *Coronavirus is like a war -- but not in the way Trump thinks*, "CNN", 25 May. https://edition.cnn.com/2020/05/25/opinions/coronavirus-war-mental-health-opinion-blanchard/index.html.

Bossie D. 2020, *Americans uniting to fight coronavirus, just as we united to fight World War II*, "Fox News", 21 March.

Brown B., Nerlich, B., Crawford P., Koteyko N. and Carter R. 2009, *Hygiene and biosecurity: The language and politics of risk in an era of emerging infectious diseases*, in "Sociology Compass" 3 [5], pp. 811-823.

Bunkall A. 2021, *COVID-19: More military personnel to join fight against coronavirus pandemic*, "Sky News", 4 January. https://news.sky.com/story/covid-19-more-military-personnel-to-join-fight-against-coronavirus-pandemic-12178806.

Calsamiglia H. and van Dijk T.A. 2004, *Popularization Discourse and Knowledge about the Genome*, in "Discourse & Society" 15 [4], pp. 369-389.

Charteris-Black J. 2004, *Corpus Approaches to Critical Metaphor Analysis*, Palgrave Macmillan, London/New York.

Chivers T. 2020, *A pandemic prophecy; This book, written before Covid-19, makes a powerful case for how to fight future epidemics*, in "The Times", 18 April.

Cockburn A. 1963, *The Evolution and Eradication of Infectious Diseases*, Johns Hopkins Press, Baltimore.

Conrad P. and Barker K.K. 2010, *The Social Construction of Illness: Key Insights and Policy Implications*, in "Journal of Health and Social Behavior" 51 [1], pp. S67-S78.

Crenshaw D. 2020, *Coronavirus – We can only fight this enemy together. That's why duty is crucial*, "Fox News", 3 April.

Dalton C. 2021, *This Covid wave has trapped healthcare workers in a nightmare. I see it every day*, in "The Guardian", 8 January.

Entman R.M. 1993, *Framing: toward clarification of a fractured paradigm*, in "Journal of Communication" 43 [4], pp. 51-58.

Garzone G.E. 2006, *Perspectives on ESP and Popularization*, CUEM, Milan.

Garzone G.E. 2014, *News Production and Scientific Knowledge: Exploring Popularization as a Process*, in Caliendo G. and Bongo G. (eds.), *The Language of Popularization: Theoretical and Descriptive Models/Die Sprache der Popularisierung: theoretische und deskriptive Modelle*, Peter Lang, Bern, pp. 73-107.

Garzone G.E. 2020, *Specialized Discourse and Popularization in English*, Carocci, Rome.

Garzone G.E., Paganoni, M.C and Reisigl M. 2019, *Discursive Representations of Controversial Issues in Medicine and Health*, in *Discursive Representations of Controversial Issues in Medicine and Health*, in "Lingue Culture Mediazioni / Languages Cultures Mediation" 6 [1], pp. 5-14.

Gibbs R.W. and Corrêa Ferreira L. 2011, *Do people infer the entailments of conceptual metaphors during verbal metaphor understanding?*, in Brdar M., Gries S.Th. and Žic-Fuchs M. (eds.), *Cognitive Linguistics: Convergence and Expansion*, John Benjamins, Amsterdam/Philadelphia, pp. 221-236.

Grant M. 2020, *The unwinnable war on COVID is more like Vietnam*, Telegraph.co.uk, 31 October. https://www.telegraph.co.uk/news/2020/10/31/forget-wwii-unwinnable-war-covid-like-vietnam/.

Guardian Music 2020, *'All that mattered was survival': the songs that got us through 2020*, in "The Guardian", 31 December.

Guardian Staff and Agency 2020, *Hard hit southern California to receive 5,000 body bags and 60 morgue trucks*, "The Guardian", 16 December. https://www.theguardian.com/world/2020/dec/15/california-coronavirus-deaths-body-bags-morgue.

Haddad Haddad A. and Montero-Martínez S. 2020, *COVID-19: a metaphor-based neologism and its translation into Arabic*, in "Journal of Science Communication" 19 [5], A01.

Hanks P. 2006, *Metaphoricity is gradable*, in Stefanowitsch A. and Gries S.Th. (eds.), *Corpus-Based Approaches to Metaphor and Metonymy*, Mouton de Gruyter, Berlin, pp. 17-35.

Hanson V.D. 2020, *Coronavirus – Yes, it's war but if we stay calm and rational we can defeat the enemy*, "Fox News", 15 March. https://www.foxnews.com/opinion/coronavirus-war-stay-calm-enemy-victor-davis-hanson.

Hauser D.J. and Schwarz N. 2015, *The War on Prevention: Bellicose Cancer Metaphors Hurt (Some) Prevention Intentions*, in "Personality and Social Psychology Bulletin" 41 [1], pp. 66-77.

Hauser D.J. and Schwarz N. 2020, *The War on Prevention II: Battle Metaphors Undermine Cancer Treatment and Prevention and Do Not Increase Vigilance*, in "Health Communication" 35 [13].

Hommerberg C., Gustafsson A. and Sandgren A. 2020, *Battle, Journey, Imprisonment and Burden: patterns of metaphor use in blogs about living with advanced cancer*, in "BMC Palliative Care" 19, Art. 59.

Hua Tan K., Woods P., Azman H., Abdullah I.H., Hashim R.S., Rahim H.A., Idrus M.M., Said N.E.M., Lew R. and Kosem I. 2020, *COVID-19 Insights and Linguistic Methods*, in "The Southeast Asian Journal of English Language Studies" 26 [2], pp. 1-23.

Hunter D. 2020, *Coronavirus: if we are in a war against COVID-19 then we need to know where the enemy is*, in "The Conversation", 1 April. https://theconversation.com/coronavirus-if-we-are-in-a-war-against-covid-19-then-we-need-to-know-where-the-enemy-is-135274.

Isaacs D. and Priesz A. 2021, *COVID-19 and the metaphor of war*, in "Journal of Paediatrics and Child Health" 57, pp. 6-8.

Ivie R.L. 1987, *Metaphor and the rhetorical invention of cold war "idealists"*, in "Communication Monographs 54 [2], pp. 165-182.

Joffe H. and Haarhoff G. 2002, *Representations of far-flung illnesses: The case of Ebola in Britain*, in "Social Science & Medicine" 54 [6], pp. 955-969.

Karabel J. 2020, *War in the time of coronavirus*, in "The Hill", 18 March. https://thehill.com/opinion/healthcare/488345-war-in-the-time-of-coronavirus.

Katz D.L. 2020, *Is Our Fight Against Coronavirus Worse Than the Disease?*, in "The New York Times", 20 March. https://www.nytimes.com/2020/03/20/opinion/coronavirus-pandemic-social-distancing.html.

Konrad E. 2020, *To fight its 'war' on COVID-19, Israel is turning citizens into enemies*, in "+972 MAGAZINE", 22 October. https://www.972mag.com/covid-security-pandemic-idf/.

Lakoff G. and Johnson M. 1980, *Metaphors we live by*, University of Chicago Press, Chicago.

Lancaster University 2020. https://www.lancaster.ac.uk/news/beyond-the-battle-far-from-the-frontline-a-call-for-alternative-ways-of-talking-about-covid-19.

Landau M.J., Sullivan D. and Greenberg J. 2009, *Evidence That Self-Relevant Motives and Metaphoric Framing Interact to Influence Political and Social Attitudes*, in "Psychological Science" 20 [11], pp. 1421-1427.

Levenson E. 2020, *Officials keep calling the coronavirus pandemic a 'war'. Here's why*, "CNN", 2 April. https://edition.cnn.com/2020/04/01/us/war-on-coronavirus-attack/index.html.

Linguistics and English Language at Lancaster University 2019, *A Metaphor Menu for People Living with Cancer*. http://wp.lancs.ac.uk/melc/files/2019/10/Metaphor-Menu-for-People-Living-with-Cancer-A4-Leaflet.pdf.

Loth R. 2020, *If the battle against coronavirus is war, it's a civil war*, in "The Boston Globe", 19 April. https://www.bostonglobe.com/2020/04/10/opinion/if-battle-against-coronavirus-is-war-its-civil-war/.

Lytvynenko J. 2021, *One Of The Most Kind People You Would Ever Meet": She Escaped the Holocaust But Not the Pandemic*, in "BuzzFeedNews", 5 January. https://www.buzzfeednews.com/article/janelytvynenko/holocaust-survivor-dies-covid-victims.

Magbanua J. 2020, *Fighting an invisible enemy: the war on COVID-19*, in "Incirlik", 1 April. https://www.incirlik.af.mil/.

Marron J.M., Dizon D.S., Symington B., Thompson M.A. and Rosenberg A.R. 2020, *Waging War on War Metaphors in Cancer and COVID-19*, in "JCO Oncology Practice" 16 [10], pp. 624-627.

McCurry J. 2021, *Fresh fears for Tokyo Olympics as host city sees surge in Covid-19 infections*, in "The Guardian", 1 January.

McLaughlin M. and Puttick H. 2020, *Please don't party over Hogmanay, Scots urged; Record number of Covid-19 cases across Britain*, in "The Times" (Scotland edition), 30 December.

Merrifield R. 2020, *Coronavirus fight 'more traumatic than the war' for 101-year-old WW2 veteran*, in "The Mirror", 13 April. https://www.mirror.co.uk/news/uk-news/coronavirus-fight-more-traumatic-war-21856426.

Miller R.S. 2010, *Speak up: 8 words and phrases to ban in oncology*, in "Oncology Times" 32 [12], p. 20.

Musu C. 2020, *War metaphors used for COVID-19 are compelling but also dangerous*, in "The

Conversation", 8 April. https://theconversation.com/war-metaphors-used-for-covid-19-are-compelling-but-also-dangerous-135406.

Nerlich B. 2004, *War on foot and mouth disease in the UK, 2001: Towards a cultural understanding of agriculture*, in "Agriculture and Human Values" 21 [1], pp. 15-25.

Nerlich B. and Halliday C. 2007, *Avian flu: The creation of expectations in the interplay between science and the media*, in "Sociology of Health & Illness" 29 [1], pp. 46-65.

Nerlich B. and Koteyko N. 2012, *Crying wolf? Biosecurity and metacommunication in the context of the 2009 swine flu pandemic*, in "Health Place" 18 [4], pp. 710-717.

Nerlich B., Hamilton C.A. and Rowe V. 2002, *Conceptualising foot and mouth disease: The socio-cultural role of metaphors, frames and narratives*, in "Metaphorik.de" 2, pp. 90-108.

Netburn D. 2020, *Mike Pence says America is 'winning the fight' against COVID-19. Is he right?*, in "Los Angeles Times", 22 June.

Ng A. 2020, *Coronavirus is a 'common invisible enemy' and coordinated efforts are needed, NATO's chief says*, "CNBC", 1 April. https://www.cnbc.com/2020/04/01/nato-chief-the-coronavirus-is-a-common-invisible-enemy.html.

Nossel S. 2020, *China Is Fighting the Coronavirus Propaganda War to Win*, in "FP", 20 March. https://foreignpolicy.com/2020/03/20/china-coronavirus-propaganda-war-journalists-press-freedom/.

Olimat N. 2020, *Pandemic: Euphemism and Dysphemism in Jordanian Arabic*, in "GEMA Online® Journal of Language Studies" 20 [3], August, pp. 268-290.

Olza I., Koller V., Ibarretxe-Antuñano I., Pérez Sobrino P. and Semino E. forthcoming, *The #ReframeCovid initiative: From Twitter to society via metaphor. Metaphor and the Social World*.

Paulus D. 2020, *How politicians talk about coronavirus in Germany, where war metaphors are avoided*, in "The Conversation", 22 March. https://theconversation.com/how-politicians-talk-about-coronavirus-in-germany-where-war-metaphors-are-avoided-137427.

Pengelly M. 2020, *Leaked White House report warns current Covid-19'*, in "The Guardian", 18 November.

Philips G. 2017, *Conventional and Novel Metaphors in Language*, in Semino E. and Demjén Z. (eds.), *The Routledge Handbook of Metaphor and Language*, Routledge, London, pp. 219-232.

Piller I., Zhang J. and Li Jia 2020, *Linguistic diversity in a time of crisis: Language challenges of the COVID-19 pandemic*, in "Multilingua" 39 [5], pp. 503-515.

Potts A. and Semino E. 2019, *Cancer as a Metaphor*, in "Metaphor and Symbol" 34 [2], pp. 81-95.

Pragglejaz Group 2007, *MIP: A Method for Identifying Metaphorically Used Words in Discourse*, in "Metaphor and Symbol" 22 [1], pp. 1-39.

Prieto-Ramos F., Pei J. and Cheng Le 2020, *Institutional and news media denominations of COVID-19 and its causative virus: Between naming policies and naming politics*, in "Discourse & Communication" 14 [6], pp. 635-652.

Reisfield G. and Wilson G. 2004, *Use of metaphor in the discourse on cancer*, in "Journal of Clinical Oncology" 22 [19], pp. 4024-4027.

Ribeiro B., Hartley S., Nerlich B. and Jaspal R. 2018, *Media coverage of the Zika crisis in Brazil: The construction of a 'war' frame that masked social and gender inequalities*, in "Social Science & Medicine" 200, pp. 137-144.

Ryan J. 2020, *Coronavirus explained*, in "CNET", 17 April. https://www.cnet.com/how-to/coronavirus-explained-symptoms-lockdowns-and-all-your-covid-19-questions-answered/.

Schwobel-Patel C. 2020, *We don't need a 'war' against coronavirus. We need solidarity*, "Al Jazeera", 6 April. https://www.aljazeera.com/opinions/2020/4/6/we-dont-need-a-war-against-coronavirus-we-need-solidarity/.

Semino E. 2008, *Metaphors in Discourse*, Cambridge University Press, Cambridge.

Semino E. 2021, *"Not Soldiers but Fire-fighters" – Metaphors and Covid-19*, in "Health Communication" 36 [1], pp. 50-58.

Semino E., Demjén Z., Demmen J., Koller V., Payne S., Hardie H. and Rayson P. 2015, *The online use of violence and journey metaphors by patients with cancer, as compared with health professionals: A mixed methods study*, in "BMJ Supportive and Palliative Care" 7, pp. 60-66.

Semino E., Demjén, Z. and Demmen, J. 2018, *An integrated approach to metaphor and framing in cognition, discourse and practice, with an application to metaphors for cancer*, in "Applied Linguistics" 39 [5], pp. 625-645.

Serhan Y. 2020, *The Case Against Waging 'War' on the Coronavirus*, in "The Atlantic", 31 March. https://www.theatlantic.com/international/archive/2020/03/war-metaphor-coronavirus/609049/.

Smyth C. 2020, *New 'social distancing' rules as Covid-19 is declared a pandemic*, in "The Times", 12 March.

Snowden F. 2019, *Epidemics and Society: From the Black Death to the Present*, Yale University Press, New Haven CT/London.

Sontag S. 1978, *Illness as Metaphor*, Farrar, Straus and Giroux, New York.

Sontag S. 1989, *AIDS and its Metaphors*, Farrar, Straus and Giroux, New York.

Steen G.J., Dorst A.G., Herrmann J.B., Kaal A.A., Krennmayr T. and Pasma T. 2010, *A Method for Linguistic Metaphor Identification. From MIP to MIPVU*, John Benjamins, Amsterdam/Philadelphia.

Tharoor I. 2020, *Are we at "war" with coronavirus?*, in "Washington Post", 6 April. https://www.washingtonpost.com/world/2020/04/06/are-we-war-with-coronavirus/.

"The Times" 2020, *How Britain can beat COVID*, 25 April.

Thomson A. and Sylvester R. 2020, *"This pandemic is like a world war, except we're all on the same side"*, in "The Times", 25 April.

Ungar S. 1998, *Hot Crises and Media Reassurance: A Comparison of Emerging Diseases and Ebola Zaire*, in "The British Journal of Sociology" 49 [1], pp. 36-56.

Ungar S. 2008, *Global Bird Flu Communication Hot Crisis and Media Reassurance*, in "Science Communication" 29 [4], pp. 472-497.

van Tulleken X. 2020, *'Four years' work in one': vaccine researchers are the unassuming heroes of Covid-19*, in "The Guardian", 31 December.

Wallis P. and Nerlich B. 2005, *Disease metaphors in new epidemics: The UK media framing of the 2003 SARS epidemic*, in "Social Science & Medicine" 60 [11], pp. 2629-2639.

Washer P. 2004, *Representations of SARS in the British newspapers*, in "Social Science & Medicine" 59 [12], pp. 2561-2571.

Washer P. 2006, *Representations of mad cow disease*, in "Social Science & Medicine" 62 [2], pp. 457-66.

Washer P. 2010, *Emerging Infectious Diseases and Society*, Palgrave Macmillan, London.

Washer P. and Joffe H. 2006, *The "hospital superbug": social representations of MRSA*, in "Social Science & Medicine" 63 [8], pp. 2141-2152.

Whipple T. 2020, *Three scenarios for learning to live with the coronavirus*, in "The Times", 24 October.

Wicke P. and Bolognesi M.M. 2020, *Framing COVID-19: How we conceptualize and discuss the pandemic on Twitter*, in "PLoS ONE" 15 [9], e0240010.

Annex

	News Febr-Mar		News Oct-Dec		Web Coronavirus	
	hits	per million	hits	per million	hits	per million
war	16	82.23 pm	4	18.29 pm	225	779.34 pm
fight	46	236.4 pm	14	65.78 pm	309	1070.3 pm
combat	10	51.39 pm	4	18.79 pm	36	124.7 pm
struggle	16	82.23 pm	19	89.27 pm	14	48.49 pm
battle	9	46.25 pm	12	56.38 pm	75	259.78 pm
attack	0	0	1	4.7 pm	31	107.38 pm
enemy	4	20.56 pm	0	0	199	689.29 pm
adversary	0		1	4.7 pm	5	17.32 pm
foe	2	10.28 pm	0	0	6	20.78 pm
weapon	4	20.56 pm	5	23.49 pm	19	65.81 pm
win	4	20.56	0	0	31	107.38 pm
victory	1	61.67 pm	0	0	10	34.64 pm
defeat	3	15.42 pm	1	4..7 pm	39	135.09 pm
trench	0	0	0	0	3	10.39 pm
frontline[12]	25	128.48 pm	20	93.97 pm	185	640.79 pm
soldier	0	0	0	0	8	27.71 pm
hero	6	30.83 pm	14	65.2 pm	6	20.78 pm
storm	4	20.56 pm	1	4.7 pm	17	58.88 pm
tsunami	1	5.14 pm	3	14.09 pm	0	0
journey	0	0	3	14.09 pm	0	0
fire	3	15.42 pm	2	9.4 pm	6	20.78 pm
conflagration	2	10.28 pm	0	0	1	3.46 pm
burn	2	10.28	5	23.49 pm	0	0
spark	2	10.28 pm	0	0	1	3.46
fuel	0	0	2	9.4	2	6.93 pm
curve	9	46.25 pm	3	14.09 pm	35	121.23 pm
flatten the curve	1	5.14 pm	3	14.09 pm	15	51.96 pm
bend the curve	0	0	0	0	5	17.32 pm
football game	0	0	0	0	1	3.46 pm

Table 1
Frequency of metaphorically used lexical items in COVID-19 sub-corpora.

[12] The count includes also the spelling "front line".

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