

Military Framing of Health Threats: The COVID-19 Disease as a Case Study

Sami Chatti⁷

Abstract

33

Military metaphors matter. In war as in peace, the language of warfare serves communicative purposes for it appeals to fear to persuade or dissuade. Given the analogy between the experience of disease and the enterprise of war, public health communication has often been receptive to the use of military jargon and war-related metaphors. The global outbreak of the coronavirus pandemic earlier this year evidenced the role and value of the warfare metaphor in framing the understanding of the novel infectious disease and informing pandemic response plans to this unprecedented and multifaceted crisis. The versatile function of the warfare metaphor poses, however, more problems than it solves. The paper explores the multiple correspondences between the source domain of war and the target domain of disease to explain the merits and limits of the warfare framing of the COVID-19 disease. It offers also an analysis of the collocational properties of the ‘coronavirus’ and ‘COVID-19’ lexemes to show the visceral relationship between treating diseases and waging wars. The fear-driven implications of such conceptual link motivate the use of alternative, hope-oriented metaphors to reframe the COVID-19 disease.

Keywords

War metaphor; Conceptual framing; Health communication; Covid-19

First submission: September 2020; Revised: June 2021, Accepted: June 2021

⁷ University of Manouba, samichatti@yahoo.fr

Introduction

The illness experience is subjective in nature, with potentially dramatic repercussions on public health during epidemics and pandemics. The global outbreak of the novel coronavirus pandemic earlier this year announced an unprecedented public health crisis. In response to the emergency, world state leaders and health officials solemnly declared war on this invisible enemy. Lockdowns, confinement, social distancing, face mask wearing, massive testing, and active tracking of positive cases are just some of the restrictive measures implemented by governments worldwide to contain the spread of the deadly disease. To galvanize efforts and legitimate actions, political and medical authorities resorted to the warfare metaphor as a flagship of health crisis communication. Framing the COVID-19 disease in military terms raises, however, questions about its conceptual significance and communicative relevance. Fear-driven responses related to war imagery might evoke a distorted conception of the pandemic, negatively influencing prevention and treatment.

1. Metaphors We Heal By

Warfare references resonate clearly and consistently with the dynamic of business, politics, and medicine. For instance, the business-as-war frame holds that the means and methods of military conflict have some relevance to business conduct, particularly in the merger and acquisitions sector where aggression, conquest, and zero-sum outcomes are required and valorized. Political agendas, in particular, tend to resort to military rhetoric to inform policy diffusion strategies. President Johnson’s war on poverty or Reagan’s war on drugs emphatically capitalize on the engaging potential of the war frame to galvanize public support for policy change. Likewise, medical and healthcare communication regularly draws on the language of warfare to describe public health threats and elaborate appropriate responses to pandemic diseases and epidemic risks.

2. Role of metaphorical framing

The value of metaphor to communication lies in its potential to highlight salient features of an issue while deemphasizing or hiding less prominent aspects. This capacity to selectively voice certain elements and silence others generates biased perceptions of reality, attesting, therefore, to the pervasive role of metaphors in communication. Framing debating in terms of a boxing game, for instance, highlights the conflicting rivalries and enacts opposing strategies, whilst a tango dance framing would shift focus on mutual harmonies and collaborative synergies. Similarly, the trade-as-a-two-way-street frame promotes free trade, whereas the trade-as-war metaphor endorses protectionism and trade barriers (Robins and Mayer 2000). Further research found that thinking about relationships within the unity frame leads a person to focus on interpersonal conflicts, whilst the journey frame reflects more naturally the highs and lows of a relationship (Lee and Schwarz 2014). In the same vein, framing the country as a body encourages people to consider immigrants pathogens, leading to social rejection of immigration (Jia and Smith 2013).

Such perspective-changing function of metaphorical framing is empirically evidenced. Based on reader-response data, Thibodeau and Boroditsky (2011; 2013) experimentally investigated, in two sets of studies, the effects of metaphorical framing on reasoning about crime. Framing criminality in terms of a beast or a virus resulted in divergent opinions about crime-solving. Their findings showed that the crime-as-a-beast frame triggers an overall tendency to law enforcement policies, whereas the crime-as-a-virus frame prompts a greater preference for social reform measures. The regularity of these framing effects led the authors to conclude that metaphors covertly influence thought. Pursuant to this reflection, the Chicago’s crime prevention program opted for a plan to treat violence as a

contagious disease that requires the deployment of social workers to form a sanitary cordon that would prevent the escalation and propagation of violence (Kotlowitz 2008).

Reduplication of Thibodeau and Boroditsky (2011)'s experiment on 28 Tunisian female students (aged 23-26) showed similar results⁸. Following the authors' method, participants were asked to read two Arabic version of a text on the crime problem and select appropriate solutions among a list of suggested measures. For the first group of participants, crime was metaphorically framed as a preying beast, and for the second group as an infectious virus. In line with expectations, fear from the beast tricked people into suggesting harsher police measures and stricter judicial policies, whereas concern for virus contagion led people to privilege the treatment of underlying causes of crime rather than its symptoms, and prefer social reform measures such as reducing poverty, fighting unemployment and improving education.

This consistency between metaphorical framing and policy preference failed, however, to showcase in a follow-up study to Thibodeau and Boroditsky, conducted by Steen and colleagues. In contrast to the original studies, Steen, et al. (2014) included the neutral frame 'crime is a problem' as a control condition to be contrasted with the two metaphorical frames 'crime is a beast' and 'crime is a virus'. Furthermore, the new study added two more experimental conditions which were not accounted for in the original studies, namely metaphorical support and topic exposure⁹. Results of this study led the authors to rule out the effect of metaphorical framing on reasoning, since participants expressed a clear preference for enforcement measures irrespective of metaphorical framing or metaphorical support. This exposure-related policy response finds evidence in several studies which draw parallels between media coverage of crime and people's fear of violence, resulting in consequent support for crime-fighting policies (Smolej and Kivivuori 2006; Custers and van den Bulck 2011; Goodall, et al. 2013).

Besides the arguable claim on the non-metaphoricity of the 'crime is a problem' frame and the ambiguity of some expressions used for metaphorical support like 'vulnerabilities', 'weakened', and 'succumbed', which could refer to both frames, Steen, et al. (2014)'s follow-up study seems to fall short on number of issues that it failed to notice in the original research, namely the relevance of the age, class, gender and race biases, as well as the role of participants' political sophistication and personality traits in the perception of criminality, and mostly the implications of implicit moral metaphors on decision-making and moral reasoning. Morally-valued words such as 'success/failure', 'maintain security', and 'decline', which were inadvertently used in both studies, seem to instantiate the Morality is Strength vs. Immorality is Weakness conceptual metaphors, in turn influencing moral judgment and emotional reasoning about crime (Mayer 2019). Drawing on further empirical evidences, Thibodeau and colleagues maintain the validity of their original premise that "natural language metaphors can affect the way we reason about complex problems" (2015: 2379).

From a neurocognitive perspective, metaphorical statements proved to be more memorable than their literal counterparts, particularly for their imageability (Marschark and Hunt 1985), leading, therefore, to better recall performance (Whitney, et al. 1996). Furthermore, empirical research showed that metaphors are more engaging, at the emotional level, than literal expressions. Several fMRI studies found that metaphorical stimuli trigger stronger emotional arousal compared to their literal counterparts and recruit regions involved in emotional processing, thus confirming the value of metaphor in emotional engagement (Citron, et al. 2020). This finding is further supported by recent

⁸ Participants were equally divided into two groups. The selection of female-only participants ensures more accurate, though gender-biased, data, given the tendency of Tunisian male youth to consider police action unproportionate and counter-productive due to past-decades of police brutality and abuse, during the recently ousted dictatorship regime, that targeted mainly male youth.

⁹Metaphorical support means existence of potentially metaphorical expressions throughout the text which may influence the reader, while topic exposure refers to the reading of crime-related materials before exposure to the metaphor.

behavioral research showing enhanced empathy in response to metaphorical language (Horton 2013), and accelerated heart rate responses to metaphorical translations compared to literal translations (Rojo, et al. 2014).

With emotional reasoning being prone to metaphorical framing, the use of affective metaphors proactively informs decision-making and problem-solving processes. Therefore, the crime-as-a-beast frame prompts a fear-based perspective to reason about crime, whilst the crime-as-a-virus frame shapes people’s perception of criminality from a hope-filled perspective. Accordingly, the former tends to neutralize the criminals through enforcement-oriented policies, and the latter aims to immunize the society through reform-oriented measures. The potential of metaphor to change perspective is further evidenced in literature. Deliberate Metaphor Theory (Steen 2015; 2017) builds on the value of metaphor in shifting focus and changing perspective to elucidate its use for communicative purposes.

The war frame, in particular, proves to be effective in grabbing people’s attention and motivating an audience to focus on the target problem. Studies showed that framing complex issues in terms of warfare makes them more memorable and enduring (Mirghani 2011). Flusberg and colleagues (2018) convincingly argue that war metaphors “draw on basic and widely shared schematic knowledge that efficiently structures our ability to reason and communicate (...), and reliably express an urgent, negatively valenced tone that captures attention and motivates action” (p. 1). In their recent study of the role of metaphorical framing in shaping attitudes, the authors found that people believe climate change is a more urgent and risky issue when it is described as an enemy in a war, rather than an opponent in a race (Flusberg, et al. 2017). In health communication, for instance, the description of flu as a hostile entity increases people’s willingness to get vaccinated (Scherer, et al. 2015), and brochures that frame the sunlight as an aversive entity increases people’s willingness to wear sunscreen (Landu, et al. 2018). Furthermore, the language of war tends to highlight the threat that diseases pose to public health, and, as a result, leads to increased funding for medical research (Petsko 2001).

3. Relevance of the MEDICINE IS A BATTLEFIELD metaphor

The history of diseases is intertwined with the chronicles of wars, and the trajectory of many epidemics converged with the routes of warfare. As soldiers crossed the borders, diseases circled the globe, travelling the highways and sailing the high waters. Ancient and modern soldiers often brandished their weapons on the battlefield, along with invisible pathogens and invasive diseases. Thucydides’ narrative of the plague of Athens that hit the city shortly after the beginning of the second Peloponnesian War contextualizes the disease in the wider dynamics of a hegemonic war. His account of the Athenian double-misfortune seals the nexus between disease and war and leads to fear and expectation of one in the presence of the other.

Many centuries later, the European conquistadors brought to the New World deadly diseases that conquered the Amerindians before the sword could be unsheathed. Modern history is equally replete with stories of wartime epidemics that provide a cautionary tale about the power of disease to decide the fate of war. During the Great War, the severe and crowded conditions of life in trenches provided fertile soil for the spread of war diseases across Europe – notably typhus, typhoid, dysentery, cholera, and influenza. The virulent flu virus, in particular, joined forces with war machinery to claim millions of lives throughout the continent. Unofficial medical records showed that the influenza pandemic killed more men in few months than did firearms in four years (Byerly 2010).

Diseases as lethal weapons further entrench the visceral relationship between viruses and wars in the collective imagery, and inform the use of the language of war to talk about health risks. Lexical representations such as ‘the national sanitary defense’, ‘a vaccination campaign’, or ‘the white-collar

army' explicitly reflect on these conceptual parallels between the medical field and the military field. In addition, hospitals resemble barracks, medical scrubs mirror military uniforms, and the physicians' Hippocratic oath evokes the soldiers' enlistment oath. In war as in peace, the mission of physicians remains the same, and the experiences of wartime caregivers have also had an undeniable impact on civilian practices, further fostering the synergy between medical and military healthcare services and protocols (Byerly 2010).

The use of the warfare metaphor in medicine evokes an affordable, ready-made war scenario that draws upon powerful elements of the individual and collective imagery to inform the common understanding of sickness and health: Germs attack the body and weaken its defenses. To neutralize these invading organisms, medical professionals conduct a battery of tests, devise a treatment protocol, and prescribe pharmaceutical bullets to defeat the disease and save the patient's life. This battlefield construct is often evoked to conceptualize the understanding of virulent diseases such as cancer: Malicious cells 'invade' surrounding healthy tissue, 'attack' the body's natural 'defenses', and 'destroy' the immune system. Equally-relevant is the description of radio and chemotherapy treatment in terms of military aerial strikes: Patients are 'bombarded' with toxic rays to 'kill' cancerous cells without, it is hoped, causing fatal 'collateral damage' to healthy cells.

The warfare imagery is even more persistent in the event of new epidemics or pandemics which threaten public health and require urgent, large-scale responses. As the drums of war grow louder, the society as a whole stands shoulder to shoulder with its medical community and public authority to face and fight the common, invisible enemy. Just as no sacrifice is excessive in time of war, expenditure and coercive measures are no longer policy concerns during a pandemic threat. It's no coincidence that the allocation of medical resources under conditions of shortage is phrased in military terms that connote urgency and necessity. For instance, the triage mechanism informs the distribution and rationing of medication and equipment according to the severity of the patients' conditions: the younger the patient and more likely to recover, the worthier of treatment and care. This utilitarian priority setting criterion is ethically ambiguous, however, as it involves some preferential treatment based on a tradeoff between cost-effectiveness and social worth. This selective prioritization strategy extends to the healthcare approach as the warfare metaphor tends to assign preference to critical care over preventive care, and to neglect palliative care when cure is not or no longer possible (Beauchamp and Childress 2001).

Furthermore, medical personal tends to use the fear of illness to foster acceptance of long and painful treatments. In the same vein, public authorities may exploit the anxiety contagious diseases feed and sustain to enforce obedience to the restrictive measures deemed necessary to contain the contagion. In time of crisis, the language of war may blur the fine-line that separates necessary measures to protect public health from excessive violations of individual rights and liberties. The global outbreak of the coronavirus pandemic is illustrative of the use of the warfare metaphor to legitimate restrictive measures and enact coercive procedures in the name of public health interest. The next section will show that the warfare metaphor is limited and limiting, as it may curtail the society's ability to address the threat posed by the global coronavirus pandemic.

4. Lexical phrasing and metaphorical framing of the COVID-19 disease

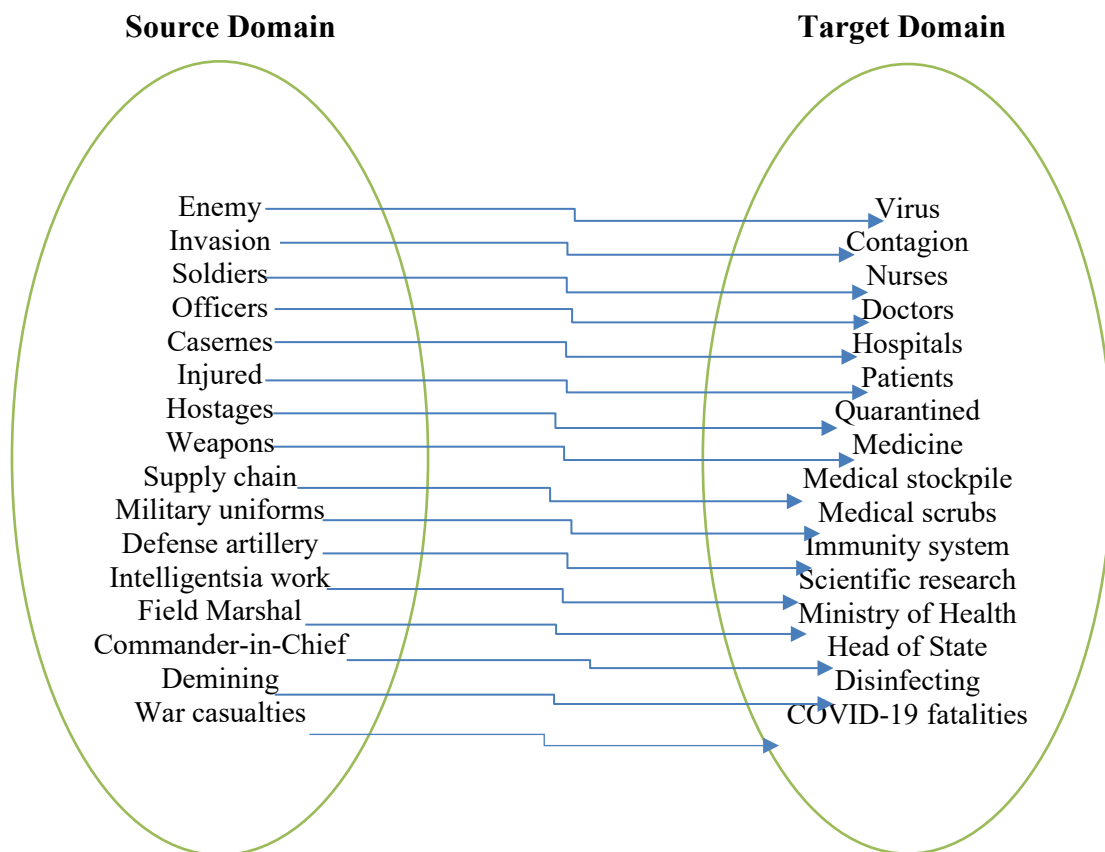
The prevalence of the warfare metaphor in the description of the coronavirus pandemic evokes deep-seated parallels between medical treatment and military effort. Governments, public health agencies and the media around the world resorted to military metaphors to describe this invisible enemy and galvanize effort to fight and beat the ravaging beast. From the early days of the pandemic, the 'white coat army' of doctors, nurses and health specialists has become one of the most active 'frontline forces' in the global fight against the coronavirus. Ministers of Health, commonly called 'war

generals’, are meeting daily in ‘war cabinets’ with medical advisors and experts to monitor the health situation and define strategies and policies to contain the spread of the virus and flatten the curve of infections. From this perspective, the warfare metaphor elaborates cross-domain mapping between fighting wars and combating diseases that commonly informs the understanding of the health pandemic.

5. Conceptual framing and collocational analysis of the COVID-19 disease

Pandemics are psychosomatic experiences that establish dynamic relationships between disease agents, methods of infection, and individual bodies. To make sense of these complex interactions, people resort to metaphor as a basic cognitive structure capable of translating this complexity in simpler, more intelligible terms. The warfare metaphor captures the multi-correspondences between the just-war source domain and the infectious disease target domain to project knowledge of the war enterprise onto the disease scheme. As a result, inferences about the novel coronavirus pandemic are generated based on stored information about the war phenomenon. The value of this cross-domain mapping lies in selecting background knowledge about a common situation to serve as a vehicle for facilitating understanding of a novel and complex situation.

Fig. 1. Cross-domain mapping of war onto disease











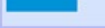
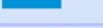



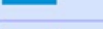
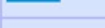
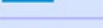
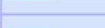

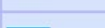
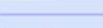
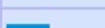






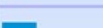
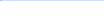



Source: Self-generated.

These multiple cross-domain correspondences between the warfare experience and the warfare enterprise seem to inform the understanding of the COVID-19 disease. Analysis of the phraseological

and collocational patterning of the ‘coronavirus’ and ‘COVID-19’ lexemes offers insightful reflections on the framing of the global pandemic. Empirical data from the coronavirus corpus, which counts 438 million words, collected between January and June 2020, show high frequency of military terms co-occurring with the ‘coronavirus’ and the ‘COVID-19’ lemmas. Collocational analysis of the top 20 most frequently-used verbs to appear within 4 words of the lemma ‘coronavirus’ ranks FIGHT in the 7th place with 10149 hits, together with a relatively high frequency of its synonyms COMBAT, BATTLE, and HIT, ranked in the 12th, 17th and 19th place respectively. Top collocates for the ‘COVID-19’ lemma show similar tendency, with the synonym set of FIGHT frequently co-occurring with the word ‘COVID-19’, and totaling 28514 hits (Tables 1 and 2, below). War-related nouns dominate also the nominal phraseology of these two lemmas, with the word ‘fight’ ranked 9th in the lexical environment of ‘coronavirus’ and 12th within the 4 words range of the word ‘COVID-19’ (Tables 3 and 4, below). These collocational properties are in line with findings from the COCA corpus, which lists FIGHT and BATTLE in the top ten verbs to appear within 4 words to the left of the word CANCER (Hauser and Schwarz 2015).

Table 1. Verbal Collocates of ‘Coronavirus’. Table 2. Verbal collocates of ‘COVID-19’

HELP	<input type="checkbox"/>	CONTEXT	FREQ		HELP	<input type="checkbox"/>	CONTEXT	FREQ	
1	<input type="checkbox"/>	[TEST]	39993		1	<input type="checkbox"/>	[TEST]	51575	
2	<input type="checkbox"/>	[CAUSE]	15084		2	<input type="checkbox"/>	[DIE]	17998	
3	<input type="checkbox"/>	[DIE]	13359		3	<input type="checkbox"/>	[CAUSE]	13347	
4	<input type="checkbox"/>	[SAY]	11505		4	<input type="checkbox"/>	[SAY]	12528	
5	<input type="checkbox"/>	[REPORT]	10832		5	<input type="checkbox"/>	[CONFIRM]	12291	
6	<input type="checkbox"/>	[INFECT]	10501		6	<input type="checkbox"/>	[REPORT]	11116	
7	<input type="checkbox"/>	[FIGHT]	10149		7	<input type="checkbox"/>	[RELATE]	10718	
8	<input type="checkbox"/>	[CONTAIN]	8703		8	<input type="checkbox"/>	[PREVENT]	10189	
9	<input type="checkbox"/>	[GET]	7986		9	<input type="checkbox"/>	[TREAT]	9730	
10	<input type="checkbox"/>	[PREVENT]	7239		10	<input type="checkbox"/>	[CONTRACT]	9724	
11	<input type="checkbox"/>	[CONTRACT]	6978		11	<input type="checkbox"/>	[FIGHT]	9477	
12	<input type="checkbox"/>	[COMBAT]	6440		12	<input type="checkbox"/>	[CONTAIN]	7817	
13	<input type="checkbox"/>	[AFFECT]	6375		13	<input type="checkbox"/>	[AFFECT]	7560	
14	<input type="checkbox"/>	[RELATE]	5950		14	<input type="checkbox"/>	[GET]	6861	
15	<input type="checkbox"/>	[HELP]	5443		15	<input type="checkbox"/>	[COMBAT]	6637	
16	<input type="checkbox"/>	[CONFIRM]	5408		16	<input type="checkbox"/>	[DIAGNOSE]	6509	

Source: Self-generated.

Table 3. Nominal collocates of ‘coronavirus’. Table 4. Nominal collocates of ‘COVID-19’

HELP	<input type="checkbox"/>	CONTEXT	FREQ		HELP	<input type="checkbox"/>	CONTEXT	FREQ	
1	<input type="checkbox"/>	[SPREAD]	74139		1	<input type="checkbox"/>	[CASE]	54420	
2	<input type="checkbox"/>	[CASE]	43165		2	<input type="checkbox"/>	[SPREAD]	53602	
3	<input type="checkbox"/>	[NUMBER]	20009		3	<input type="checkbox"/>	[CORONAVIRUS]	42884	
4	<input type="checkbox"/>	[IMPACT]	17181		4	<input type="checkbox"/>	[IMPACT]	29036	
5	<input type="checkbox"/>	[OUTBREAK]	14765		5	<input type="checkbox"/>	[NUMBER]	22439	
6	<input type="checkbox"/>	[PEOPLE]	14341		6	<input type="checkbox"/>	[DISEASE]	19715	
7	<input type="checkbox"/>	[RESPONSE]	11885		7	<input type="checkbox"/>	[PEOPLE]	16022	
8	<input type="checkbox"/>	[DEATH]	10527		8	<input type="checkbox"/>	[DEATH]	15824	
9	<input type="checkbox"/>	[FIGHT]	8090		9	<input type="checkbox"/>	[PATIENT]	11855	
10	<input type="checkbox"/>	[COUNTRY]	6930		10	<input type="checkbox"/>	[RESPONSE]	11636	
11	<input type="checkbox"/>	[CONCERN]	6844		11	<input type="checkbox"/>	[RISK]	11601	
12	<input type="checkbox"/>	[RISK]	6720		12	<input type="checkbox"/>	[FIGHT]	11326	
13	<input type="checkbox"/>	[TIME]	6534		13	<input type="checkbox"/>	[SYMPTOM]	10053	
14	<input type="checkbox"/>	[WAKE]	6423		14	<input type="checkbox"/>	[OUTBREAK]	10032	
15	<input type="checkbox"/>	[RESULT]	6133		15	<input type="checkbox"/>	[RESULT]	9662	
16	<input type="checkbox"/>	[SYMPTOM]	6009		16	<input type="checkbox"/>	[HEALTH]	8689	

Source: Self-generated.

6. Conceptual framing and collocational analysis of the COVID-19 disease

The jargon of warfare echoes a crisis-centered political rhetoric that established war-time metanarrative to legitimate governmental response to the unprecedented public health threat. In France, President Emanuel Macron solemnly declared war against the coronavirus, before claiming, three months later, “first victory” over the dreadful disease as France enters the ‘green zone’ of lower risk state. In Britain, Queen Elizabeth II addressed the nation in a vibrant speech that recalls the ‘stand-alone’ moment of 1940, urging the British to embrace a new age of sacrifice, resilience and collective endeavor. In the United States, President Trump pronounced himself ‘a wartime president’ combating a ‘foreign threat’. The Chinese leader, Xi Jinping has also declared a “people’s war” to defeat the coronavirus. In Tunisia, the freshly appointed head of government, Elyes Fakhfakh, declared the country on “a state of war against the coronavirus” ten days after he took office. His Minister of Health axed the sanitary strategy on “cutting the supply lines of the virus”, through the implementation of confinement and social distancing measures.

The communicative effects of this war framing are visible and impactful. Rounds of applause are ringing out in many locked-down cities throughout the world, and social media is being flooded with messages of support to health heroes for putting their own lives at risk to help others. In research laboratories, funds are pouring in to help scientists in their race against the clock to find a cure or a

vaccine to repel the invading pathogen. To ease the burden on social workers, young people volunteer to deliver food and medication to the needy elderly. Traditional and social media joined forces to share critical and reliable information on preventive and protective measures to reduce the risk of contagion. Powerful hashtags like – #StayHomeSaveLives; #StopTheSpread; #QuarantineLife; #FlattenTheCurve; #Masks4All – were endorsed by social media influencers to engage the public in the fight to flatten the curve.

War comes with a price, though. Winning the lexical battle is only the first step in a long and tedious journey. Words translate into actions, and so did this war of words which soon unfolded into military-like campaigns to contain the spread of the virus. Restrictive measures to reduce social contact and limit physical mobility have been enacted, including social distancing, large-scale confinement, quarantine protocols, mass testing and contact tracking programs, and complete lockdown of entire cities and countries. To enforce these strict measures, security forces – the police and the military – were granted extensive powers. Many countries declared the state of emergency and adopted the rule-by-decrees mode of governance to respond to the exceptional health crisis situation. Heavy fines and prison sanctions were introduced to punish violations of the restrictive measures on the freedom of movement and the failure to wear a face mask. Location tracking, contact tracing and big data analysis measures were developed and implemented with no or little consideration for their impact on privacy and data protection standards. In this regard, the warfare metaphor reveals to be questionable as it arouses fear and exaggerates the health threat in order to secure a willy-nilly acceptance of painful sacrifices.

In the course of war, fear is often used as a way to distort reality and break the will of the opponent. This strategic tactic may backfire, however, when it comes to fighting viral and bacterial enemies. Research on emotional distress proved that negative feelings are demoralizing and demotivating for the patients. Reflecting on her own battle to fight cancer, Sontag (1979), for instance, strongly warned against the demonization of diseases as dreadful enemies for it stigmatizes patients and influences their coping abilities, in turn affecting recovery. Furthermore, the warfare metaphor tends to increase the perceived difficulty of treatment, leading patients to feel guilty (Hendricks et al. 2018), disempowered (Semino, et al. 2017), and even accept fatalistic beliefs (Hauser and Schwarz 2019). Also, the linguistic exaggeration of a health risk without offering an efficient solution could suggest defeat as a potential outcome of a battle, blaming, in the filigree, the patient for partial or non-recovery (Granger 2014).

From this perspective, military framing of health crises poses more problems than it solves. Indeed, the language of war reflects a fearful description of treatment, affecting negatively people's receptiveness of health information (Hauser and Schwarz 2015). Fear appeals for Aids/HIV disease, for instance, enhance risk perception but decrease prevention behavior (Earl and Albarracin 2007). Similar studies showed that people who conceptualized their struggle with cancer as a battle experienced increased anxiety and depression during treatment, compared to those who conceived it as a journey (Degner, et al. 2003). These findings gain further importance in the context of the novel coronavirus pandemic, during which military jargon eclipsed medical terminology. Not only the warfare metaphor unnecessarily exaggerates a health risk, but also, and mainly so, neglects equally-important aspects of the global pandemic such as the effects of confinement and social distancing on the population (Wicke and Bolognesi 2020). These limitations of the warfare metaphor motivate the need for a plethora of metaphors to inform the communication of various aspects involved in the current pandemic. In this respect, the project to reframe COVID-19 in non-war-related metaphors, launched by Veronika Koller and Elena Semino in April 2020, aims to generate hope-oriented tropes as relevant alternatives for the fear-axed warfare metaphor. To-date, the initiative cumulated 339 contributions in 27 languages and 55 visuals, which select SPORTS as the dominant alternative metaphor to frame the COVID-19 disease. The hope-driven dimension of the sports domain, as

opposed to the fear-related effect of the war domain, may reveal to be a more suitable framing for public health communication about the COVID-19 disease.

Conclusion

The image of war informs morality with its bipolar oscillation between two opposing narratives: One that embraces the triumph of the self over an evil enemy, and another that mourns the loss and suffering of innocent civilians caught in the crossfires. To weave a positive moral memory of warfare, a just cause condition (*jus ad bellum*) needs to be fulfilled in order to legitimize the use of weapons and feature war as a necessary, rule-governed enterprise rather than a random murder mission. This positive just war imagery upholds the moral limitation of war and transcends the scope of military metaphors.

The prevalent use of the warfare metaphor to articulate what's at stake amid the outbreak of the novel coronavirus pandemic reflects an understanding of health risks in terms of military threats. The existence of multiple correspondences between the source domain of war and the target domain of disease attests to the significance of the warfare enterprise to inform the welfare experience. Fear of war, however, unnecessarily exaggerates a health risk, but paradoxically euphemizes death as an acceptable loss. Given its limited and limiting effects, the warfare metaphor fails to account for the imperative of hope that triggers recovery and resilience. Healthcare communication needs, therefore, to reframe the pandemic within hope-oriented frames that evokes the optimistic race for an affordable and effective vaccine to the disease. Sports metaphors, which highlight victory without dramatizing defeat, constitutes an alternative way to frame the COVID-19 disease.

References

- Beauchamp, T. L., and Childress, J. F. (2001). *Principles of biomedical ethics*. Oxford: Oxford University Press.
- Byerly, C. R. (2010). "The U.S. Military and the Influenza Pandemic of 1918-1919." *Public Health Reports*, 125(3), 82-91.
- Citron, F. M. M., Lee, M., and Michaelis, N. (2020). "Affective and psycholinguistic norms for German conceptual metaphors." *Behavior Research methods*, 52, 1056-1072.
- Custers K, van den Bulck J. (2011). "Mediators of the association between television viewing and fear of crime: Perceived personal risk and perceived ability to cope." *Poetics*, 39, 107-124.
- Degner, L. F., Hack, T., O'Neil, J., and Kristjanson, L. J. (2003). "A new approach to eliciting meaning in the context of breast cancer." *Cancer Nursing*, 26(3), 169-78. Doi: 10.1097/00002820-200306000-00001.
- Earl, A., and Albarracín, D. (2007). "Nature, decay, and spiraling of the effects of fear-inducing arguments and HIV counseling and testing: A meta-analysis of the short and long-term outcomes of HIV-prevention interventions." *Health Psychology*, 26, 496-506.
- Flusberg, S. J., Matlock, T., Thibodeau, P. H. (2017). "Metaphors for the war (or race) against climate change." *Environmental Communication*, 11(6). Doi: 10.1080/17524032.2017.1289111
- Flusberg, S. J., Matlock, T., Thibodeau, P. H. (2018). "War metaphors in public discourse." *Metaphor and Symbol*, 33(1). Doi: 10.1080/10926488.2018.1407992.
- Goodall, C. E., Slater, M. D., and Myers, T. A. (2013). "Fear and anger responses to local news coverage of alcohol-related crimes, accidents, and injuries: Explaining news effects on policy support using a representative sample of messages and people." *Journal of Communication*, 63, 373-392.
- Granger, K. (April 25, 2014). "Having cancer is not a fight or a battle." *The Guardian*.
- Hauser, D. J., and Schwarz, N. (2019). "The War on Prevention II: Battle Metaphors undermine Cancer Treatment and Prevention and Do not increase vigilance." *Health Communication*, 34. Doi: 10.1080/10410236.2019.1663465
- Hendricks, R., Demjen, Z., Semino, E., and Boroditsky, L. (2018). "Emotional Implications of Metaphor: Consequences of Metaphor Framing for Mindset about Cancer." *Metaphor and Symbol*, 33(4), 267-279. Doi: 10.1080/10926488.2018.1549835.
- Horton, W. S. (2013). "Character intimacy influences the processing of metaphoric utterances during narrative comprehension." *Metaphor and Symbol*, 28(3), 148-166. Doi:10.1080/10926488.2013.797735.
- Jia, L., and Smith, E. R. (2013). "Distance makes the metaphor grow stronger: a psychological distance modal of metaphor use." *Journal of Experimental Social Psychology*, 49(3), 492-497. Doi: 10.1016/j.jesp.2013.01.009.
- Kotlowitz, A. (May 4, 2008). "Is urban violence a virus?" *New York Times Magazine*, 52-59.
- Landau, M. J., Arndt, J., and Cameron, L. D. (2018). "Do metaphors in health messages work? Exploring emotional and cognitive factors." *Journal of Experimental Social Psychology*, 74, 135-149.
- Lee, S. W., and Schwarz, N. (2014). "Framing love: When it hurts to think we were made for each other." *Journal of Experimental Social Psychology*, 54, 61-67. Doi:10.1016/j.jesp.2014.04.007.
- Marschark, M., and Hunt, R. R. (1985). "On memory for metaphor." *Memory and Cognition*, 13, 413-424.
- Mayer, W. (2019). "Preaching hatred? John Chrysostom, neuroscience, and the Jews." In: C. L. de Wet and W. Mayer (eds). *Revisioning John Chrysostom: New Approaches, New Perspectives, Critical Approaches to Early Christianity*, Leiden: Brill.
- Mirghani, S. (2011). "The war on piracy: Analyzing the discursive battles of corporate and government-sponsored anti-piracy media campaigns." *Critical Studies in Media Communication*, 28(2), 113-134.
- Petsko, G. (2001). "The rosetta stone." *Genome Biology*, 2(5), 1-2
- Robins, S. and Mayer, R. (2000). "The Metaphor Framing Effect: Metaphorical Reasoning about Text-based dilemmas." *Discourse Processes*, 30(1), 57-86. Doi: 10.1207/S15326950dp3001_03.
- Rajo, A. M., Caro, M. R., Valenzuela, J. (2014). "The emotional impact of translation: A heart rate study." *Journal of Pragmatics*, 71, 31-44. Doi: 10.1016/j.pragma.2014.07.006.
- Semino, E., Demjen, Z., Demmen, J., Koller, V., Payne, S., Hardie, A., and Rayson, P. (2017). "The online use of violence and journey metaphors by patients with cancer, as compared with health professionals: A mixed methods study." *BMJ Supportive and Palliative care*, 7, 60-66.
- Scherer, A. M., Scherer, L. D., and Fagerlin, A. (2015). "Getting ahead of illness: Using Metaphors to influence medical decision making." *Medical Decision Making*, 35, 37-45. Doi: 10.1177/0272989X14522547.
- Smolej, M. and Kivivuori, J. (2006). "The relation between crime news and fear of violence." *J Scand Stud Criminol Crime Prev*, 7, 211-227.
- Sontag, S. (1979). *Illness as Metaphor*. New York: Farrar, Straus and Giroux.
- Steen, G. (2015). "Developing, testing and interpreting deliberate metaphor theory." *Journal of Pragmatics*, 90, 67-72. Doi:10.1016/j.pragma.2015.03.013.

- Steen, G. (2017). “Deliberate metaphor theory: Basic assumptions, main tenets, urgent issues.” *Intercultural Pragmatic*, 14(1), 1–24. Doi:10.1515/ip-2017-0001.
- Steen, G., Reijnerse, W. G., Burgers, C. (2014). “When Do Natural Language Metaphors Influence Reasoning? A Follow-Up Study to Thibodeau and Boroditsky (2013).” *PLoS One*, 9(12). Doi:10.1371/journal.pone.0113536
- Thibodeau, P. H., and Boroditsky, L. (2011). “Metaphors we think with: The role of metaphor in reasoning.” *PloS One*, 6(2), e16782. Doi:10.1371/journal.pone.0016782.
- Thibodeau, P. H., and Boroditsky, L. (2013). “Natural language metaphors covertly influence reasoning.” *PLoS One*, 8(1), e52961. Doi:10.1371/journal.pone.0052961.
- Thibodeau, P. H., and Boroditsky, L. (2015). “Measuring effects of metaphor in a dynamic opinion landscape.” *PLoS One*, 10(7), e0133939. Doi:10.1371/journal.pone.0133939.
- Wicke, P., and Bolognesi, M. (2020). “Framing COVID-19: How we conceptualize and discuss the pandemic on Twitter.” *PLoS One*, 15(9), e0240010. Doi:10.1371/journal.pone.0240010
- Whitney, P., Bubb, D., and Mio, J. C. (1996). “Individual differences in metaphoric facilitation of comprehension.” In: J. Mio and A. Katz (eds.). *Metaphor: Implications and Applications*. New Jersey: Lawrence Erlbaum.