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Disease and Conceptual Metaphors: A Corpus Analysis of English Newspaper Articles Related to COVID-19

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Abstract

Metaphors are not just ornamental tools; they are fundamentally a reflection of human thought and embodiment. Based on the notion that metaphors are cognitive processes that reflect cognitive vision to understand human concepts through language, the current study is aimed at identifying Covid-19 conceptual metaphors in media discourse. To evaluate the metaphorical use of language, a corpus of three Pakistani English newspaper articles published in March 2020 was created. The needed data is extracted and analyzed using the corpus tool *AntConc* and the theoretical framework of Conceptual Metaphor Theory given by Lakoff and Johnson (1980). The results of the study demonstrate that the conceptual metaphor Covid-19 as *war* is excessively utilized in the Covid-19 editorial text. Whereas, other conceptual metaphors are also observed in the corpus, like Covid-19 as a killer, Covid-19 as a possession, and Covid-19 as an earthquake. The findings also reveal that the newspaper articles reflect persuasive ideology. Therefore, while stating the facts and figures, the use of metaphoric expressions is possibly used to instill seriousness among Pakistani public about Covid-19.

1. Introduction

In December 2019, a novel coronavirus known as Covid-19 infected the lives of many people working at Huanan Seafood Wholesale Market, Wuhan, China with unusual pneumonia (She, et al., 2020). Thereafter, the disease rapidly took over the country, and in February, the World Health Organization (WHO) declared the Covid-19 as a pandemic due to its rapid spread in almost all countries globally. According to the data collected by the European Centre for Disease Prevention and Control, from December 31, 2019 to August 21, 2020, about 22705647 cases of Covid-19 have been reported and 794104 people have been killed by the contagious disease (COVID-19 situation update worldwide, as of 21 August 2020., 2020).

Unlike former contagious diseases like Ebola and SARS, the nature of the Covid-19 breakout as the infection has threatened many lives. The pandemic began in December 2019 and evolved into the largest and most severe outbreak in the history of the disease (Liu, et al., 2020). Due to this, it has received international attention and a public health emergency has been declared by WHO. The spread of coronavirus has not only affected the industries and economies of the world but also affected the social lives of people (Katermina & Yachenko, 2020), along with causing a great deal of fear and panic in the public. It has not only instilled fear in individuals at a social and psychological level but has also drastically altered the conventional patterns and behaviours of people. Along with other changes cause by Covid-19 in the world, the communication mode is also affected at the linguistic level. In this regard, a major role is played by the media coverage on all media platforms. Covid-19 receives intensive global coverage in print as well as in electronic media. The image of Covid-19 is portrayed differently in various languages from diverse perspectives utilizing different modes of communication.

Usually, coronavirus or disease discourse is part of the medical and scientific discourse, which is objectively employed. However, when the disease is used by ordinary people in their discourses, it is sometimes used both subjectively and metaphorically to conceptualize the phenomenon. To study this aspect of language, a corpus study can indicate different usages and senses of the words created by the speakers. Therefore, the primary aim of the present study is to examine the framing of Covid-19 in Pakistani English newspapers by focusing on metaphors as tools for conceptualizing the novel disease. This paper also examined the use of Covid-metaphors in Pakistani English newspaper articles. For this purpose, the data is analyzed using the theoretical framework of “Conceptual Metaphor Theory” (CMT), which is proposed by George Lakoff and Mark Johnson in the field of Cognitive Linguistics. Previously, in linguistics, metaphors are just considered as ornamental parts of language and stylistic tools, but Lakoff and Johnson (1980) refute this approach and propose that metaphors are not just ornamental tools but fundamental reflections of human thought and embodiment. Such an approach to view metaphor can only be possible after the emergence of cognitive linguistics as a separate discipline.

One of the major developments in the field of linguistics is the study of language about the mind and how language is organized by ideas, thoughts, and embodiment. Understanding language and the meanings of linguistic items are related to conceptualization and embodiment. This approach to study language is provided by Cognitive Linguistics, which is a newly emerged field that investigates the relationship between language, mind, and embodied experience (Evans, 2011). To study language from this approach is to study conceptualization. Language is a window to cognitive function and provides knowledge about the nature, structure, and organization of thoughts and ideas. This approach deviates from other traditional views as it assumes that language can provide insightful explanations about certain basic properties and features of human mental faculty i.e., mind (Evan & Green, 2006).

The Covid-19 discourse is investigated linguistically in the light of salient features of the CMT to observe the conceptual mapping of virus in metaphorical terms. To examine how the Covid-19 is conceptualized in the Pakistani media, a collection of data about Covid-19 metaphorical expressions is collected from Pakistani English newspapers.

2. Literature Review

2.1 Metaphor, Language, and Thought

Language reflects the patterns of thought and conceptualization as it is a product of general cognitive abilities. Many cognitive linguists agree on the role of bodily experiences in language for the production of semantic and syntactic structures (Barcelona & Valenzuela, 2011). Many linguistic concepts are assumed to have their origin in embodied experiences. Language provides us with a gateway to deeply understand the nature, structure, and organization of thoughts and ideas (Evan & Green, 2006). The metaphor is also among those structures that are the result of embodied experience and is pervasive in human thinking (Lakoff & Johnson, 1980). It is why Lakoff and Johnson (1999) argue that “metaphor is not arbitrary, but is also grounded in experience”. The three major points they employ are: “the mind is inherently embodied; thought is mostly unconscious; abstract concepts are largely metaphorical” (Lakoff & Johnson, 1999, p. 3). So, whatever the human mind perceives, becomes a thought and this thought is further expressed through metaphors to convey diverse meanings. These metaphorical representations are frequently reflected in language at a large scale in our common discourses. Therefore, metaphor is an everyday phenomenon that mainly deals with the complex linguistic framing of one particular thing in terms of its corresponding. Thus, metaphor is an integral part of human thinking rather than just a rhetorical device used by rhetoricians and literary people.

2.2 Metaphor and Disease

Much of the research on conceptual metaphors is only a manual study of text and introspective reports. Very recently, researchers have begun to use corpora in this field. Corpora provide an insightful explanation and facilitate researchers to study the real moments and formation of language (Lindquist, 2009). Besides this, corpora are important as they provide extensive context around metaphors. One way of studying metaphors is to elaborate on the fact that which words influence the metaphors from the source domain. (Lindquist, 2009, p. 119). Another way is to look at the target domains, which can further assist in pointing out different metaphorical words related to the target source (p. 120). The literature on corpus-based studies provides evidence of how the concordance tool can help in identifying conceptual metaphors by searching for relatable lexical items, particularly domains. Deignan (2005) has searched for animal terms, e.g. rabbit and squirrel, to study their use in metaphorical expressions. It is found that in metaphors, such animal terms act as a source domain. Whereas, Semion et al., (2015) has investigated words like journey and path to study the journey metaphor in the discourses of cancer patients utilizing a corpus tool. Stefanowitsch (2006) has studied emotional words like happiness and sadness to identify the related metaphorical expressions. He has carefully examined the co-text of the searched term to see whether the keyword or related lexical items are used metaphorically through the corpus tool. In the case of specialized corpora, it is a commonly used technique to analyze a small representative sample of the data manually for relevant metaphorical expressions. Such an approach is also used by Charteris-Black (2004), where he has searched only for specialized vocabulary in the whole corpus.

2.3 Metaphor and Disease

Usually, a discourse contains many metaphorical expressions that are produced in a particular setting or context. The central focus of the present study is to explore disease metaphors used in common media discourse. Previously, a significant number of studies have been conducted to investigate the correlation between disease and metaphors from different perspectives. The work on disease metaphors has initially gained heights after Sontag's *Illness As Metaphor* (1978). She writes the book after surviving the deadly disease of cancer. In this book, she provides an insightful explanation about how different disease stages shape metaphors. During her pre-AIDS days, she writes *AIDS and Its Metaphors* (1989), in which she brilliantly describes how common discourse produces scenarios where militarized jargon is used to stigmatize and abandon disease victims. Likewise, Malm (2016) has examined the war metaphors used excessively in medical discourse about cancer and its treatment. The results reveal that war metaphors portray cancer as an enemy and the individuals under treatment as soldiers in the battle of death. In the whole scenario, cancer is conceptualized in terms of war as both a disease and a conceptual metaphor.

In addition, Zimmermann (2017) has researched narratives of Alzheimer's patients where patients describe themselves in the disease phase. Through their narratives, contents, and forms, it is found that Alzheimer's disease is mostly perceived in negative connotations. The metaphors identified in narratives reflect human imperfections, nature, and the failures that serve as a sharp lens to explore the underlying fears of loss and ageing that exist in society. Harrington (2012) has noted that patients intentionally use multiple, complex, and contradictory metaphors to encode their internal struggle and find meaning in their disrupted lives (Harrington, 2012, p. 408).

Metaphor Studies that are conducted from a literary perspective discuss the variation found in the use of metaphors related to several other diseases. One such study is conducted by Lawrence (2019) that explores leprosy and blindness metaphors in the Gospel. The results show that the leprosy metaphor is used in terms of untouchability with social death and blindness as an inability to navigate moral terrain. Whereas, social and religious sensibilities act as a barrier that causes leprosy to prevent interactions between individuals for the fear of pollution caused by it. Further, the blindness metaphors are used in the context of a dispute over ritual purity that denotes discursive disorientation. Moreover, the majority of the mentioned disease and disability metaphors also fall into the same categories. In another study by Al-Jumaili (2020), he investigates the metaphorical representations of medical terminologies used in John Keat's poetry. Findings suggest that the term fever is used metaphorically to draw an analogy between illness and negative mental states. The other medical terms are used to present the plight of his characters and poetic personas metaphorically, which enable readers to think of their mental and emotional state as medical issues. This conceptual mapping appears due to his adoption of a new profession (poet) from the previous profession (physician).

Recently, Craig (2020), has reviewed the studies conducted on AIDS to compare the Covid-19 situation by examining the metaphorical language. He has updated the framework of AIDS by drawing inferences from previous studies. Through this framework, he views how language instantly shapes metaphors to conceptualize a disease. This assists him in informing about the metaphors that can be possibly used for Covid-19 as well. He concluded that metaphors are the result of political and medical responses to the disease. Metaphorical

expressions related to the disease are drawn from embodied and sensorimotor experiences. Among these, war metaphors are the most frequently occurring ones.

In the above studies, it is highlighted that the nature of all deadly diseases, like cancer, AIDS, Alzheimer's, and leprosy, is represented through the use of one common metaphor, i.e. war. They are always militarized considering the patients' horrific journey. From this, it can also be deduced that the language produced during Covid-19 could also be similar. Therefore, war metaphors are highly expected in the Pakistani media discourse as well.

2.4 Metaphor, Epidemics and Media

In the last few years, Covid-19 is seen spreading all over the world rapidly. People globally talk about it using different linguistic expressions and metaphorical terms. Haddad and Montero-Martínez (2020) have inspected the significance of the Covid-19 neologism in the English language and their translation into Arabic. They have examined that how the rapid spread of the disease has created new linguistic representations and other relatable terms. It might be to fill the linguistic gap between different languages spoken around the world to address the contagious virus. Resultantly, new terms have facilitated communication about various aspects of the pandemic.

The media, whether social, print, or electronic, is evidentially seen engaged in disseminating information about Covid-19 to spread general awareness among the public. For instance, Wicke and Bolognesi (2020), have investigated a large corpus of tweets posted between March and April 2020 to observe the framing and conceptualization of Covid-19 especially the metaphorical use of war-related terms. The results suggest that the war frame is more frequently used as compared to alternative figurative frames like monster, storm, and tsunami, but family is used metaphorically as the frame of control. Significantly, the linguistic expressions facilitate users to express their feelings, opinions, and beliefs related to the pandemic situation. Thus, it can be deduced that war-related metaphors can also be found not only in public discourse but also in discourses generated by the media. It led many researchers to examine the use of metaphors in media discourses, such as by Chiang and Duan (2007). They have conducted studies on SARS-related editorials in China and Taiwan, including LT, UDN, and PD. They have established three editorial corpora which are analyzed by using critical metaphor analysis approach to generate three-stage metaphorical analysis. The findings reflect on the fact that newspapers not only transmit their ideologies but also project political motives using metaphors. The discourse in their media appears to have a political orientation rather than a medial representation of the disease. It is why SARS is presented in terms of war or a disaster rather than its projection as a disease. In another study by Wallis and Nerlich (2005), have observed the metaphorical expressions in UK media coverage of SARS. For this purpose, five national newspapers are explored. Again, similar conclusions are drawn due to its nature, social impact, and individual responses. Besides this, struggle metaphors are also evident in media discourses to elaborate on the human and economic impacts of SARS. All these metaphorical representations are set in the context of local political discourse and media culture.

In light of the findings from the above mentioned studies, diseases are mostly perceived as war. Other metaphors like fire, struggle, control, and journey are also found in disease discourses. These studies have pointed out political, economic, and social factors that helped in

conceptualizing disease in a certain way. Based on these studies, a few very popular metaphors have emerged that are expected to be attached to Covid-19 or disease in general. It might be due to the different social or cultural lenses they have adopted to examine the language. Thus, meanings mostly associated with diseases only highlight the disease nature and the effects the victims received. The current study is motivated to answer whether Covid-19 shares similar traits just like all other fatal diseases that terrorize the globe. Is Covid-19 also conceptualized in terms of war or other analogies are used? Most importantly, what image of the virus is shown by the Pakistani media as media culture varies according to the respective society.

Moreover, a minimal amount of literature regarding novel Covid-19 metaphors has been reported. For example, Semino (2020) has explored the metaphorical language used during the Covid-19 pandemic and its significance for everyday communication. He concludes that during the pandemic, "war metaphors" are more frequent whereas "fire metaphors" are more versatile and appropriate for everyday communication than war metaphors. Therefore, there is a dire need for close inspection on Covid-19 metaphors, which should be studied by adopting a cognitive linguistics perspective. Cognitive Linguists also prefer the use of natural language to analyze conceptual metaphors by applying a usage-based approach. In this regard, the corpus provides an insightful explanation and facilitates researchers to study the real moments and formation of language. In this way, a comprehensive understanding can be built of its occurrence, influence, and impacts on the human mind, language, and experiences. Also, much can be deciphered about language building and formation. Hence, the current study selected Pakistani English newspaper articles for corpus analysis as a site for further exploration of conceptual metaphors used in the language related to the world's most common contemporary issue, Covid-19. For the said purpose, the following research questions are answered by the study.

- Q.1. How novel virus is conceptualized and metaphorically represented through language?
- Q.2. What are certain Covid-19 metaphors used in Pakistani English Newspaper Articles?
- Q.3. What types of other conceptual metaphors are associated with Covid-19 in Pakistani English newspaper discourse?

3. Methodology

Usually, cognitive linguistics adopts a usage-based methodology in both qualitative and quantitative terms (Mittelberg, et al., 2007, p. 48). Much of the research on conceptual metaphors is only a manual study of text and introspective reports. Very recently, researchers have begun to use corpora in this field. As the corpora are a collection of real-life instances, Cognitive Linguists also prefer the use of natural language to analyze conceptual metaphors by applying a usage-based approach. In this regard, the corpus provides an insightful explanation and facilitates researchers to study the real moments and formation of language (Lindquist, 2009). Besides this, corpora are important as they provide extensive context around metaphors. For this purpose, the present study also adopts the user-based approach to conduct this research. It has adopted qualitative means of analyzing keywords in the corpus context to examine whether the use of lexical choices is metaphorical or literal.

3.1 Theoretical framework

To study the meanings and metaphorical system, George Lakoff and Mark Johnson propose a theory known as “Conceptual Metaphor Theory” (hereafter CMT) with the publication of “Metaphors We Live By” (1980). This theory is one of the earliest approaches and theoretical frameworks in the field of Cognitive Semantics. According to the theory, metaphor is not only a stylistic or linguistic tool but human language and thought processes are metaphorical. The human conceptual system is metaphorically structured. In that system, abstract concepts are structured in a way that they are defined by conceptual concrete domains which are derived from the embodied experience of the physical world (Lakoff & Johnson, 1980). So, the conceptualization of abstract concepts is done through concrete concepts, which happens in a way of cross-domain mapping. Cross-domain mapping is an essential terminology used in CMT. In conceptual metaphors, mapping is done in a systemic way between the elements of the source and target domains.

The target domain is usually an abstract concept, and the source domain is a concrete one. Therefore, the relationship that is built-in conceptual metaphors is in the form of 'A is B', where A is the target domain and B is the source domain. Simply, TARGET DOMAIN IS A SOURCE DOMAIN.

3.2 Data Collection

In terms of data collection, the corpus of Pakistani English newspaper articles related to Covid-19 is built to study the application of metaphorical expressions in Covid-19 discourse. In this regard, articles from three mainstream English newspapers published in Pakistan are selected, such as Dawn (DN), The News International (TNI), and Express Tribune (ET). The newspaper articles selected are published in March 2020. About one hundred and thirteen articles are included in the corpus in the following ratios: Thirty-one (31) from Dawn, twenty-six (26) from the Express Tribune, and fifty-six (56) articles from The News International. Thus, the total number of tokens estimated in the corpus is 107721. The corpus of Pakistani newspaper articles is delimited to the selection of articles related to Covid-19 or coronavirus only, authored by Pakistani writers. The selection of the news articles is also based on the use of terms like Covid-19, virus, corona and other relevant terminology at least twice.

The current study focuses on virus-related search keywords that serve as target domains in constructing the disease metaphor, such as Covid-19, coronavirus, virus, pandemic, epidemic, and disease. Following that, a list of linguistic units is generated. For analytical purposes, only those units are chosen that have a metaphorical usage. Finally, within linguistic units, source domains for conceptual metaphors are identified. The corpus program ‘AntConc, version 3.5.9’ is then used to analyze the collected data. Later, the metaphors are searched out using concordances to provide their usage contexts and metaphorical abundance.

4. Results and Discussion

To answer posed research questions, including what are certain conceptual metaphors related to Covid-19 used in Pakistani Newspaper Articles? How is Covid-19 conceptualized in Pakistani newspaper articles? For this purpose, researchers have analyzed the corpus of Pakistani

English newspapers to find out Covid-19 conceptual metaphors. The corpus is analyzed qualitatively by observing the concordance occurrences. By identifying the use of keywords in context, it helps to decide whether a linguistic item was used metaphorically or in a literal sense.

In this section, different metaphors are identified related to Covid-19 having different source domains, such as WAR, KILLER, POSSESSION, MOVEMENT, and EARTHQUAKE. It is important to note that keywords related to virus and Covid-19 diseases act as target domains for the mentioned metaphors. The virus itself is an abstract concept that is realized linguistically with the help of different source domains. Each of the metaphorical source domains is then discussed in detail below. The tables presented highlight the metaphorical use of the linguistic expressions which have been identified from the concordance occurrences. Each linguistic unit is used as a node word to know whether its usage is in metaphorical terms or not. The Macmillan Dictionary, an online dictionary source, is preferred to authenticate the presence of linguistic units in the standard language along with their literal meanings. In the analytical procedure, at first hand, the literal meanings of the linguistic units are identified. Later on, their metaphorical uses are realized by looking at words in context.

4.1 War Metaphors

As seen in Table 1, the war metaphor dominates the conceptualization of Covid-19 in the corpus. Linguistic units such as “war, fight, attack, battle, frontline, enemy, and hit” are among the most used militaristic vocabulary in Covid-19 discourse. All of the newspapers use such linguistic items to conceptualize the situation, the health sector and society are going through.

Table 1

Linguistic units, literal, metaphorical meanings, and domains of WAR metaphors

Linguistic Unit	Literal meaning	SOURCE DOMAIN	Metaphorical meaning	TARGET DOMAIN
War	A situation in which two or more parties fight	WAR	Actions were taken to Prevent disease/virus	COVID-19
Fight	To take part in a battle or war against the enemies	WAR	preventing infectious disease/virus	COVID-19
Attack	Act of using violence to harm or kill someone	WAR/FIGHT	infection	COVID-19
Battle	A fight between two armies, ships, or plain during a war; a fight between groups	WAR	Preventing infectious disease/virus	COVID-19
Frontline	An area where enemies are facing each other during war/fight	WAR	An emergency when health-workers are facing the Deadly virus	COVID-19
Enemy	Opponent i.e., country, soldiers, or person	WAR	The invisible virus is giving people a tough time	COVID-19
Hit	To knock	WAR/FIGHT	Virus infection	COVID-19
Win	Victory in a battle, race, etc	WAR	Eradication of disease/virus	COVID-19

It is evidentially seen that military vocabulary is frequently used in medical discourse. War metaphors are highly used when the disease is reported or discussed. The disease is conceptualized as an alien and enemy, which has caused urgency and motivated the public to fight against the threat (Sontag, 1989, p. 99). The way humans conceptualize and describe certain concepts is highly metaphorical, where one entity is understood in terms of the other. In the same way, table 1 highlights the concepts related to war and their metaphorical mapping with health/disease/Covid-19. Human beings typically think and talk about DISEASE in terms of WAR. As Sontag (1989) has also identified that war metaphors are abundantly found in medical discourse whenever diseases are discussed. Similarly, the current pandemic situation is perceived metaphorically as a wartime situation that has disturbed the public, health workers, governments, and the whole world globally.

Given below are the concordance lines (1 to 7) that show how war metaphoric expressions are employed in the newspaper.

1. Once again, we are at **war** and this time **against the Covid-19 coronavirus pandemic**. PM Imran Khan becomes that lucky prime minister **at war** who will lead this nation in this time of difficulty. But in this indifferent **war**, we are to stay home and not go out and **fight**. (ET-24 March 2020)
2. Second, I cannot overemphasize the fact that we need to protect our **frontline** healthcare staff, particularly nurses, on a **war footing**. (TNI-25 March 2020)
3. all political forces can jointly **fight the battle against the coronavirus**. (TNI-31 March 2020)
4. the coronavirus outbreak had **hit Qom**. (ET-30 March 2020)
5. Pakistan has finally proclaimed **to fight an enemy** whose virulence has no parallel in our national memory: the Covid-19. (ET-31 March 2020)
6. this pandemic **first attacked China** (TNI-22 March 2020)
7. China will **win the battle against the COVID-19** epidemic. (TNI-08 March 2020)

Each of these expressions has emerged out of war discourse/military discourse to convey the idea of the current pandemic situation and the status of the disease. In this way, conceptual metaphors like COVID-19 IS A WAR represent DISEASE IS A WAR. A War is a confrontation between two or more countries or parties due to conflict or opposition that exists between them. In such types of situations, each party tries to evoke solidarity among its members to fight and win against the opponents/enemies. War metaphors in Covid-19 discourse play the same functions. The conceptualization of Coronavirus or Covid-19 as an enemy has inflicted injuries on members of the society and has seized the major systems. It is similar to an attack by invaders on nations (see lines 4 and 6). Therefore, society is at war and public health is at risk. So, to protect public health from this deadly virus, fighting at the national and international level is required against the coronavirus. It can be observed that many of the terms from wartime, including “fight, attack, battle, frontline, enemy, hit, and win”, are used for conceptual mapping in medical and health discourse. Thus, it is deduced that COVID-19 IS WAR is the most frequently used metaphor in newspaper articles.

4.2 Killer Metaphors

As in the war metaphors, Covid-19 is also framed as a violent entity, therefore non-humanistic or unscientific language has been adopted by the writers. In our data, another type of conceptual metaphor related to Covid-19 has occurred, i.e., COVID-19 IS A KILLER. This metaphor is also predominant and recursively found in newspaper articles due to the nature, actions, and dreadful impact of Covid-19. Table 2, given below, demonstrates the linguistic units used as the source domain in killer metaphors. It also presents the conceptual mapping between the source domain and the target domain for the conceptual metaphor “COVID-19 IS A KILLER”. In this conceptual metaphor, the disease is metaphorically conceptualized as a human or animal that kills. By employing such conceptual metaphors, the purpose seems to be described as a horrible and unwanted entity that is causing harm to society. Moreover, it also keeps people aware of the nature and impact of the disease.

Table 2

Linguistic unit, literal, metaphorical meanings and domains of KILLER metaphor

Linguistic Expressions	Literal Meaning	SOURCE DOMAIN	Metaphorical Meaning	TARGET DOMAIN
Killer	An object, person, or animal that can cause death	KILLER	Covid-19 kills	COVID-19/VIRUS
Deadly	Causing to death	KILLING/DEATH	Virus causes death	COVID-19/VIRUS
Victim	A person who has been attacked, injured, or kill as a result of a crime accident	KILLING/HARM	A person infected by a virus	COVID-19/VIRUS

The table shows the labels which are associated with novel viruses are "invisible killer, the deadly virus". The victim is repetitively used for virus patients by excluding medical terms like patient or infected. Thus, the virus victimizes the patients by harming or causing their instant death, as mentioned in the concordance lines (see below 08 to 11). This virus claims to be the silent killer of millions of its victims.

8. More than 27,000 lives have already been lost to the **invisible killer**. (TNI-30 March 2020)
9. Governments all over the world are spending their resources to develop and implement strategies to overcome **this deadly virus**. (TNI-17 March 2020)
10. About 195 countries have fallen **victim to it**. (TNI-30 March 2020)
11. Most of the people **it killed** were young adults (DN-18 March 2020)

Moreover, there is also an overlap between war metaphors and killer metaphors; for example, the linguistic items ‘hit, attack and kill’ are the frequently used expressions in fight/war metaphors and they can also be categorized as expressions used in killer metaphors. The Covid-19 in this case is framed as a physical assaulter who hits people, regions, countries, or the

economy. Also, the one who is behind widespread victims of the deadly disease. Both War metaphors and killer metaphors can be categorized into yet another broad metaphor, i.e., the Force metaphor. It can be hypothesized that COVID-19 IS A PHYSICAL FORCE. It can be seen in the choice of lexical units, such as ‘hitting, attacking, and killing’ (see lines 4, 6, and 11 respectively), which refer to the physical impact of a virus on an individual’s health, not only physical but can also be a psychological force in nature. The metaphor of physical force is based on the “schema of force”. According to cognitive linguistics, force is an image schema that involves physical interaction and can easily be experienced by the body. According to Lakoff and Johnson (1980), image schemas provide the embodied basis for conceptual metaphors (p.40).

4.3 Possession Metaphors

Owing to the nature of coronavirus, like many diseases, it shares the trait of transmitting infection from one individual to another. Those people who get infected with Covid-19 are seen as a constant threat to bring it and pass it on to others. That is why a large number of people are reported as Covid-19 positive in Pakistan and other countries globally. Based on this feature, the language arises with another distinct metaphorical type: COVID-19/DISEASE IS A POSSESSION.

Table 3

Linguistic expressions, their literal and metaphorical meanings and domains

Linguistic Expressions	Literal Meaning	SOURCE DOMAIN	Metaphorical Meaning	TARGET DOMAIN
Catch	To take hold of somebody/something	POSSESSION	Infected	COVID-19
Get	To acquire possession of	POSSESSION	Infected	COVID-19
Contract	An agreement between two people or parties	POSSESSION	Infected	COVID-19
Burden	Load	POSSESSION	Psychological and social pressure for securing the health of the public against the virus	COVID-19
Pass	To go from possession/ownership from one party to another	POSSESSION	Transmitting disease from one person to another.	COVID-19
Carrier	One that carries	POSSESSION	Danger	COVID-19

Table 3 depicts the highly used lexical items and source and target domains of this conceptual metaphor. Linguistic units, such as people who “catch, get and contract” Covid-19/disease/virus (see lines 12 to 14 below), are considered as a ‘burden’ (see line 15) on other people, the nation, and the healthcare system. They then, ‘pass the virus’ on to others (see line 16). In other words, a sick person becomes an active agent (X person becomes sick and is infected by Y). Thus, Covid-19 becomes a possessive entity, which can be given or received. In this way, it continues the cycle of making ‘victims and carriers’ of the disease (see line 17). An

infected person who is a victim, on one hand, is received as a danger on the other. In newspaper articles, such use of the metaphoric expression is commonly based on the embodied experience of keeping possession. It signifies how the disease is conceptualized in the everyday language of the speakers.

12. The cured people could **catch the virus** again; (DN-21 March 2020)
13. Just imagine if they **get Covid-19** (TNI-22 March 2020)
14. It worries me no end that unprotected medical professionals will **contract the virus**, (DN-22 March 2020)
15. Human contact, anywhere and everywhere in the world, now carries **the burden of contagion**. (DN-25 March 2020)
16. an infected person can **pass on the illness** to those he meets and they, in turn, become carriers to others (TNI-26 March 2020)
17. the government was able to quarantine potential **carriers of the virus** for the duration of the incubation period. (ET-17 March 2020)

4.4 Other disease metaphors

This heading covers the other disease metaphors identified from the corpus of English newspaper articles. Table 4 below highlights the variety of linguistic expressions such as ‘wave, lockdown, and epicenter’ to metaphorically describe the virus itself and its repercussions on health, society, politics, and the economy of the world.

Table 4

Linguistic expressions, their literal and metaphorical meanings and domains

Linguistic Expressions	Literal Meaning	SOURCE DOMAIN	Metaphorical Meaning	TARGET DOMAIN
Wave	A line of water that rises on the surface of a sea, lake, or river.	MOVEMENT	A period of activity that is a part of the same activity	COVID-19
Lockdown	A time period when people are locked in their homes	MOVEMENT	Restricted movement, SOPS	SOCIETY
Epicentre	Part of the earth surface directly above the focus of an earthquake	EARTHQUAKE	A hotspot of infectious disease	COVID-19

“Wave and lockdown” serve as the source domains of MOVEMENT employed on target domains COVID-19 and SOCIETY respectively. They lead to the formation of two different conceptual metaphors with different conceptualizations of COVID-19. Such as COVID-19 IS A MOVEMENT and SOCIETY IS A MOVEMENT. Whereas the linguistic item “epicentre” acts as a source domain EARTHQUAKE for the targeted domain, i.e., COVID-19, which forms the conceptual metaphor COVID-19 IS EARTHQUAKE. As far as the conceptual metaphor COVID-19 IS A MOVEMENT is concerned, it informs us about the movement of the virus. Previously, it was seen in one city. Later on, slowly and gradually, the movement has spread to

the whole world. ‘Wave’, which has a different linguistic meaning, is employed metaphorically for the upcoming period of the Covid-19 pandemic. Whereas the lockdown, which is related to movement, is metaphorically employed as a restriction on society to not move outside due to SOPs and avoid contact with infected people. Meanwhile, the ‘epicentre’ is used to refer to the situation when a virus hits the region and turns them into a RedZone. Now the disease has spread worldwide, beginning with China as the epicentre. It gradually moved to Europe and other parts of the world.

18. So when the **second wave** of the disease arrives much of the population would be ready and able to deal with it. (ET-30 March 2020)
19. By contrast, the Italian authorities delayed the **lockdown** and so the disease spread quickly, overwhelming their medical system, (TNI-26 March 2020)
20. COVID-19 keeps spreading, with the **epicentre** shifting from Asia to Europe (DN-18 March 2020)

5. Conclusion

The present study reveals the use of various metaphors and how Covid-19 is conceptualized in Pakistani English newspaper articles. The corpus analysis of newspaper articles establishes that different conceptual metaphors of viruses have taken influence from their source domains based on the similarity of features they possess. The metaphoric conceptualization of Covid-19 highlights that the newspapers predominately rely on the metaphoric use of language to articulate thoughts effectively after receiving influence from political, social, and economic factors. The conceptual metaphor COVID-19 AS WAR is excessively utilized in the text. Whereas other conceptual metaphors are also observed in the newspaper discourse, such as COVID-19 AS KILLER, COVID-19 AS POSSESSION, and COVID-19 AS EARTHQUAKE. The war metaphors that are predominant in the newspaper articles helped to increase solidarity in the nation to eliminate the deadly virus. On the other hand, they also become a source of prevailing fear among the audience. The killer metaphor is used in a negative connotation to state the nature of the disease and its terrible impact on humans. Nevertheless, War, Killer, and Possession are used as source domains to symbolize the disastrous Covid-19 and represent it as more threatening.

The infected people who are presented as victims in the killer metaphors, their representation have been shifted from victims to carriers: those who have the potential to spread the disease. They are represented as culprits, who are blamed for being responsible for the spread of Covid-19. There is no use of empowering meanings found in newspaper articles for infected people. They are perceived negatively by society and media, especially in the use of war, movement and possession metaphors. They are rarely been given credit as fighters other than being ordinary victims.

Keeping in view the discussion, it can be concluded that newspaper articles have a persuasive ideology. Therefore, while stating the facts and figures, the use of metaphoric expressions is possibly used to generate seriousness among the Pakistani public. Nie et al (2016) have argued that while interpreting meanings of disease metaphors or their usage in any medical context requires careful examination as it may result in creating either a positive or negative

image of the disease. Nie et al (2016) in their study observed literary metaphors in HIV cure research. They found that most linguists interpret the metaphorical language using the war context, where the disease is always treated as an enemy and the struggle to cure it as a battlefield. They emphasized that less aggressive meanings and peaceful metaphors should be created. It is reasonable to think that in the scenario of Covid-19, the use of such military metaphors as mentioned earlier has caused panic, anxiety, and depression among the public. Consequently, it reduces the chances of cure and recovery for the Covid-19 patients. Therefore, the media must take precautionary measures while formulating the language, keeping in view the consequences.

6. Limitations and Recommendations

Newspapers are important sources through which one's perspectives, views, opinions, mindset, and ideologies are shaped, generated, or recreated. From the findings of this study, one can understand the manipulative use of words to convey a specific message directly or indirectly. It is generally known that words carry varying degrees of intensity. This intensity stands in direct relation to the context, situation, and structure in which words are used. The present research has addressed the use of language in Pakistani newspapers to generate Covid-19 seriousness, potential danger, and fear among the public. Through this, it tries to analyze the relationship between conceptual metaphors, language, and thoughts, which made language an integrated unit. Our study is limited in terms of the methodology applied for data collection and analysis. In parallel to qualitative analysis, the frequency of each linguistic item in conceptual metaphors can add more clarity and understanding to the emphasis shown by the print media. Moreover, the spectrum of the data included can also be broadened by including newspaper Covid-19 articles published nationally and internationally and Covid-19 statements given by affected countries' statesmen. It will be helpful and effective to generate multiple linguistic techniques applied by the speakers to develop a sense of seriousness among the masses. Likewise, a variety of other source domains can also be examined to show Covid-19 metaphorical expressions and their uses.

Following the lines of the user-based approach, our study involved an investigation into the written language, whereas, spoken data can also be more effective in understanding the public views about Covid-19. Real spoken data can be collected from Covid-19 recovered patients as introspective reports that can inform us about how experiences shape perceptions, language, and vice versa. For future research implications, a more detailed and comprehensive study on Covid-19 conceptual metaphors can be conducted to capture the theme of virus fear in the general public by analyzing patient discourse using the Cognitive Discourse Analysis (CODA) methodology as well.

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