

Fight the virus, stick with the rules and reduce the peak: An Analysis of the Metaphors Used by Boris Johnson and Nicola Sturgeon to Discuss the COVID-19 Pandemic in Their Official Press Conferences from March to October 2020

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Abstract. The field of metaphor research has shown that metaphor can shape thought (Lakoff & Johnson, 1980) and affect reasoning (Thibodeau & Boroditsky, 2011), emotion (Hendricks et al., 2018) and behaviour (Hauser & Schwarz, 2015). Recently, this power of metaphor has been applied to investigate how the metaphors used by prominent political leaders frame the COVID-19 pandemic (Semino 2020b). There have been few in-depth studies on the metaphors used by UK politicians, specifically politicians from the Scottish Government, like Nicola Sturgeon, and those from the UK Government, like Boris Johnson. This study investigates the discourse of these politicians and asks what metaphors they used to discuss the pandemic and if they differed in any way. I extracted the metaphors from a sample corpus of daily press conferences between March and October 2020 using the Metaphor Identification Procedure (Pragglejaz Group, 2007). The results gathered from this process reveal two main conceptual metaphors which are shared by both speakers: THE COVID-19 VIRUS IS A POWERFUL AGENT, which instils the virus with weight and power, and THE PANDEMIC IS A JOURNEY – society is ‘moving towards’ normality and ‘follows’ scientific data as a ‘guide’ to get there. However, there is nuance between the two speakers: Johnson uses much more negatively valenced violence metaphors, such as ‘fight’ and ‘battle’, compared to Sturgeon who avoids these violent metaphors and foregrounds defence in words like ‘protect’. I discuss the potential effect of these metaphors on public perception of the crisis and avenues for possible future research.

Keywords: metaphor; discourse analysis; cognitive linguistics

1 Introduction

The COVID-19 pandemic is one of the most calamitous events of the 21st century. The virus originated in China in late 2019 and spread throughout Europe in early 2020 and by March it had spread worldwide. The initial ‘first wave’ saw thousands die, millions of businesses close and billions confined to their homes under government enforced ‘lockdowns’. The COVID-19 pandemic has influenced every part of daily life and, as a result, many researchers from different fields have studied it and all its facets. From a linguistics perspective, the COVID-19 pandemic has greatly impacted everyday language use. The Oxford English Dictionary found that the most frequent words in their corpora between April and June 2020 were virus related with ‘PPE’, ‘lockdown’, ‘pandemic’, and ‘ventilator’ being the most popular (OED Editorial, 2020). Researchers have noted a shift towards ‘coronaspeak’, which refers to coronavirus related vocabulary that has dominated everyday conversation (Thorne, 2020).

One area of language that has received a lot of focus in particular is metaphor. This is not only because metaphors are ubiquitous in speech, accounting for around 20% of natural discourse (Thibodeau et al., 2017, p. 854), but also because discussion surrounding the pandemic has been largely metaphorical. The pandemic has been described as a ‘war’ which needs to be ‘fought’ (Heffernan, 2020) and a natural disaster where humanity is caught in the ‘perfect storm’ with a ‘tsunami’ of cases which throws society into a ‘meltdown’ (Nerlich, 2020a).

A focus of metaphor research specifically examines politicians’ use of metaphor as this can affect how the public forms opinions about issues (Charteris-Black, 2011, p. 32). An issue as catastrophic and frightening as the COVID-19 pandemic meant that politicians had to choose their metaphors carefully. This was the case for the UK as the primary source of communication the public received about how to live and act during the pandemic came from the leading politicians in the nation. Research conducted on what metaphors were used by these politicians can illuminate how the pandemic and its many facets was discussed and delivered.

As of yet, there has been no large-scale study conducted on the metaphors used by UK politicians to discuss the pandemic. This essay aims to examine the metaphors used by two major political leaders in the UK, Nicola Sturgeon, the leader of the Scottish Government, and Boris Johnson, the leader of the UK Government, in their public press conferences delivered during the critical period of the pandemic between March and October 2020. I ask the following questions:

- What are the metaphors used by both speakers to discuss a set of salient target domains related to the COVID-19 pandemic?
- How do these metaphors frame aspects of the pandemic?
- Are there similarities and/or differences in the metaphors used between the speakers?
- What is the potential impact of these metaphors on public perception of the crisis?

In the next Sections, I will discuss the power and significance of metaphor, previous research on metaphor and COVID-19 and the Scottish and UK political dimension which will further illuminate these questions.

1.1 The Importance of Metaphor

An approach to metaphor research developed in the 1980s by Lakoff and Johnson found that some metaphors can exist in systems where they express very similar ideas. For example, there are several metaphors which express emotions in terms of heat, e.g., ‘he made my blood boil’, ‘she’s cold hearted’, ‘a lukewarm response’ etc. (Lakoff, 2016, p. 270). Systematic metaphors like these exist in everyday speech and can pattern our discourse. Lakoff and Johnson tried to account for this in their Conceptual Metaphor Theory (CMT) by arguing that there exists a range of ‘conceptual metaphors’ in the mind of speakers which generate these systematic metaphors found in speech (Lakoff & Johnson, 1980, p. 7). Conceptual metaphors are created by the mapping between two concepts in the mind: the ‘source domain’, which is the concept speakers take knowledge and vocabulary from, is mapped onto a ‘target domain’, which is the concept that is being described (Lakoff & Johnson, 1980, p. 252). In the metaphors where emotions are discussed in terms of heat, the source domain HEAT is mapped onto the target domain EMOTIONS to form the conceptual metaphor: EMOTIONS ARE HEAT (following the conventions of CMT, the source and target domains are capitalised). This conceptual metaphor can then generate the linguistic metaphors found in

discourse like ‘he made my blood boil’ etc. It is important to note that conceptual metaphors are a property of thought and not of discourse. The metaphors found in discourse are taken as evidence to suggest the existence of an underlying conceptual metaphor.

Due to this cognitive dimension of metaphor, Lakoff and Johnson argue that the metaphors we use can reflect our conceptual structure and reveal how we perceive and think about concepts in the world. This was demonstrated in an experimental study where two groups of participants read different passages about crime. Each passage was written according to one of two common conceptual metaphors used to discuss crime: CRIME IS A VIRUS or CRIME IS A BEAST. These conceptual metaphors describe crime differently through systematic metaphors, e.g., in CRIME IS A VIRUS, crime is ‘spreading’ and ‘plaguing’ cities, and in CRIME IS A BEAST, crime is ‘ravaging’ cities and perpetrators need to be ‘hunted’. Participants were then asked how they think the crime problem should be solved. A major result found was that the type of metaphors the participants read affected their answers. Participants who read the CRIME IS A VIRUS passage suggested that the crime problem should be solved by rooting out the cause of the issue and creating more social reform. On the other hand, participants who read the CRIME IS A BEAST passage suggested that more officers should be hired, and more jails should be built to ‘catch and cage the criminals’ (Thibodeau & Boroditsky, 2011, p. 5). Participants thought about the issue of crime in terms of the metaphor they were exposed to, which suggests that metaphor can influence a reader’s thought process. A potential explanation for this, the researchers argue, is that the source domains which are used (VIRUS/BEAST) contain different knowledge structures. When the mapping between one of the source domains to the target domain (CRIME) takes place, the stored knowledge specific to the source domain highlights some aspects of the target domain, therefore creating a different understanding of the target (Thibodeau et al., 2017, p. 852).

This study shows that conceptual metaphors can have real world effects on the thoughts and reasoning abilities of listeners and readers. If the participants in the study were politicians, the metaphors used to describe crime could have influenced how they, for example, voted on legislation. Lakoff further discusses this effect of conceptual metaphor by arguing that some conceptual metaphors were used to ‘justify’ the Gulf War in 1990. He argues that one popular conceptual metaphor which was developed was THE STATE IS A PERSON. This conceptual metaphor is indicative of the politicians’ thoughts: they believed that the state needs resources to ‘survive’ and oil was its ‘lifeline’. If it were cut off then it would ‘die’, so they went to war to effectively ‘save’ themselves (Lakoff, 1991, p. 26).

A criticism of CMT is that it is unclear how many conceptual metaphors exist and how much systematicity of metaphors in discourse is needed in order to suggest an underlying conceptual metaphor (Gibbs, 2011, p. 533). Conceptual metaphors can also be shared by a culture or a group of people (Lakoff & Johnson, 1980, p. 8), so if only one instance of a metaphor was used by a speaker, this could still suggest a conceptual metaphor which is shared generally by speakers in the same culture. On the other hand, one instance of metaphor may not indicate an underlying conceptual metaphor; it could be a possible novel use. This means that it is challenging to ‘find’ conceptual metaphors in the minds of speakers which makes it difficult to discuss their potential impact on thought. CMT is still a common theory, however, and has shaped metaphor research for decades. Studies on metaphor commonly use the terms ‘source’ and ‘target domain’ which I will continue to adopt. Also, in my analysis for metaphors for the COVID-19 crisis used by Johnson and Sturgeon, the existence of possible underlying metaphors in the minds of the speakers will only be suggested when a set of very similar metaphors occur frequently in their speech.

Looking more generally at metaphor in discourse rather than in thought, metaphor is still a very powerful linguistic device due to its ability to ‘frame’ concepts. This is a process where speakers select

‘aspects of a perceived reality’ to make them more noticeable and important against a background of other aspects (Entman, 1993, p. 52). Framing is inherent in metaphor because speakers need to choose what concept, and the vocabulary from that concept, they will use to describe another concept. For example, in the metaphor ‘read the road’, the choice of ‘read’ frames the road as a book, which foregrounds its ability to be understood and processed like a text. If the metaphor were ‘decipher the road’, then the framing would change: the road is now a code. This foregrounds its complexity as it now must be decoded to understand it. Crucially, both of these metaphors offer a different interpretation of what a road is. The former describes it as something approachable and easy to understand, whereas the latter makes it appear as something difficult. This means that the framing ability of metaphor can create a particular interpretation of a concept which affects the way people understand it (Boeynaems et al., 2017, p. 119; Semino et al., 2018, p. 626).

This framing ability of metaphor has multiple effects on listeners. Experimental evidence suggests that metaphorical framing can influence behaviour and reasoning. A study was conducted on participants who were exposed to different framings of cancer. After reading excerpts of text where cancer was either framed as an ‘enemy’ or as a ‘balance’, e.g., an ‘unbalance of cells’, participants were asked questions about how likely they were to engage in certain behaviours. Those who read cancer as an ‘enemy’ were much less likely to engage in behaviours which would reduce their risk of cancer, like reducing red meat consumption, engaging in more exercise and so on, compared to participants who read cancer as a ‘balance’ (Hauser & Schwarz, 2015, p. 71).

As well as influencing behaviour and reasoning, metaphor can also influence the way we emotionally evaluate a situation. Hendricks et al. (2018) conducted a study where they asked participants to read excerpts about someone suffering from cancer and answer questions about the protagonist’s experience. The protagonist’s experience was either framed as a ‘journey’ or a ‘battle’. One finding was that participants who read the ‘journey’ passage felt that the protagonist was more likely to make peace with their situation compared to those who read the ‘battle’ passage who stated that the protagonist would be more likely to feel guilty about their illness (Hendricks et al., 2018, p. 271). A similar study on patients who received involuntary outpatient treatment for mental health illnesses found that the metaphors they used reflected whether they felt positively or negatively towards their treatment. Some patients viewed it positively as a ‘safety net’, but others were more negative and framed it as a tool for punishment and control, e.g., like a ‘tranquiliser’ or as if they were ‘locked up’ (Lawn et al., 2016, pp. 5–10).

Similar studies to these have been conducted on a broad range of target domains, such as financial markets (Morris et al., 2007), obesity (Atanasova, 2018), democracy (Nasirci & Sadik, 2018), climate science (Deignan et al., 2019) and so on. These studies all compound the same suggestions: metaphors can frame aspects of real life in certain ways which can influence our interpretations and opinions, as well as affect our reasoning, our emotions, our behaviour, and, potentially, how we think about a situation or concept. As a result of the power of metaphor, it is the central concern of this essay which will particularly focus on the framing effects of metaphors for COVID-19 and how groups of similar metaphors can potentially suggest the existence of underlying conceptual metaphors.

1.2 Metaphor, Infectious Diseases and COVID-19

Science communication to the public typically uses metaphor to discuss complicated ideas in simpler and more understandable terms (Deignan et al., 2019, p. 379). Infectious diseases are a particularly relevant area to the public as deadly viruses can disrupt daily life. This makes the metaphorical framing of diseases important as it can help the public avoid catching any viruses. Work on the framing of SARS in British

newspapers found that the most common framing technique of the disease used by journalists was to describe the virus as a ‘lethal’ and ‘deadly threat’ and a ‘killer bug’ (Washer, 2004, p. 2565). Other metaphors, such as ‘slams’, ‘hurt’, ‘hammered’ and ‘gripped’, frame the virus as a powerful and forceful danger in society (Wallis & Nerlich, 2005, p. 2635). This was the most dominant framing constructed for the virus, and since it was delivered by the media, it managed to pervade the lives of the public.

COVID-19, which is like the SARS virus, has been framed in a very similar way. It has been described as an ‘invisible killer’ and a ‘threat’ (BBC News, 2020a). A number of studies have criticised the use of military metaphors for COVID-19, which describes doctors as being on the ‘frontline’ in the ‘battle’ ‘against’ the disease, by arguing that they negatively frame the pandemic as chaotic and filled with unnecessary deaths and suffering (Wise, 2020). This type of framing can also cause doctors to be viewed as brave ‘heroes’ who are ‘fighting’ for the people, which puts even further pressure on healthcare workers (Hannan, 2020).

As a result of the prolific use of war metaphors, researchers, namely Semino, Koller, Sobrino, and others, started the #ReframeCOVID project (the hashtag indicates that it originally started on Twitter) in order to find other ways of framing the pandemic from different languages and cultures across the world (Semino, 2020b; Nancy, 2020). They found that the crisis and its consequences can be framed and understood in many different ways, such as framing the virus itself as a ‘fire’ which needs to be ‘put out’ (Semino, 2020a) or framing the pandemic as a ‘journey’ which everyone is ‘on’ (Cox, 2020).

The #ReframeCOVID project shows the vast extent to which the COVID-19 pandemic has been discussed metaphorically. It also highlights the complexity of the metaphors used: aspects of the pandemic can be framed differently through a range of metaphors used by different people across the world. Each metaphor then has its own effects on people’s understanding and construal of events. The next Section will specifically focus on the UK and Scotland’s approach to COVID-19 and how this could have impacted the metaphors used.

1.3 UK and Scotland’s Approach to COVID-19

The UK’s approach to the COVID-19 pandemic was unique as alongside the overarching UK Government, there are also devolved governments in Scotland, Wales, and Northern Ireland which have their own leaders. This means that the people from these countries were not only asked to listen to their devolved leader but also to the UK’s leader, Boris Johnson. In Scotland, the Scottish people followed the advice of First Minister Nicola Sturgeon about how to live and act during the pandemic, but so too were they asked to follow Boris Johnston’s advice. The two governments have aimed to be ‘united’ in their approach throughout the crisis (Macnab, 2020) but have taken drastically different decisions. For example, the leaders ‘eased’ the lockdown restrictions at different stages throughout Summer 2020 with Johnson making decisions weeks before Sturgeon. Scotland also has a different ‘tier system’ from the rest of the UK and enacted it incongruently with England in October and November 2020 where large swathes of Scotland saw pub and restaurant closures, whereas England did not (Scottish Parliament Information Centre, 2021). The different approaches from both Johnson and Sturgeon diverged to such an extent that a poll conducted on a group of people from Scotland found that three quarters preferred Sturgeon’s handling of the pandemic compared to Johnson’s (Flockhart, 2020).

Johnson and Sturgeon approached the pandemic differently in their policy decisions, but of interest here is whether they also approached it differently in their metaphor use. Finding a potential difference, or similarity, in how the leaders framed aspects of the pandemic through their metaphor choices can further

reveal insight into their reasoning and show how they delivered crucial information to millions of people throughout the nation.

1.4 Summary

In summary, metaphors are powerful tools: when used on listeners and readers, metaphors can affect the way they reason about and interpret concepts which can influence their behaviour and emotions. They can also suggest how speakers think about concepts when evidence suggests the existence of an underlying conceptual metaphor. The following Sections of this essay will now apply these previous findings about the power of metaphor to speech data from Sturgeon and Johnson. Section 2 describes how the metaphors used to discuss aspects of the COVID-19 pandemic were extracted and analysed. In Section 3, I will discuss how the metaphors frame each main aspect of the crisis and if they indicate possible underlying conceptual metaphors. Section 4 offers a wider discussion which pulls the metaphors together to suggest how the speakers generally framed the pandemic. Section 5 will conclude on the main findings and lead into Section 6 which offer avenues for potential future research.

2 Methodology

2.1 Corpora Construction

The primary texts for this study are the public press conference speeches delivered by Boris Johnson and Nicola Sturgeon. There are many reasons why these texts have been chosen. Firstly, they were important to the public as they contained the key information about how to live and act during the pandemic and were viewed by millions of people at the height of the crisis (Boyle, 2020). Secondly, each briefing was of the same genre as the other, i.e., an address to the public and were all in the same format where a set speech was delivered followed by a question-and-answer session with journalists. Language differs between different genres and contexts so the similarity between the briefings allowed for a robust comparison of metaphor use (Semino et al., 2018, p. 8). Finally, the speeches are not ephemeral and hard to access compared to quotes in newspapers or discussions with journalists in interviews. Instead, they are fully scripted and easily accessible on the websites of the UK and Scottish Government.

Although the press conferences are robust texts to analyse, collating them into corpora posed some difficulties. Both speakers did not deliver the same number of briefings throughout the pandemic, nor did they deliver them on the same date. This not only creates inconsistency but also a vast amount of data. For the purposes of this study, only the first briefing of the month delivered by the two speakers was analysed. Defining the parameters of the corpus in this way still creates bias and does not account for all the data. However, the first briefing of the month was taken as a milestone for the development of the pandemic and allows for comparison between the speakers.

The time period that was chosen was between March and October 2020. The reason for this is that mid-March was when the pandemic began in the UK which subsequently started the daily press briefings on the crisis. This was also the start of 'lockdown' which was gradually eased throughout the summer then reinstated in many forms and complexities around September/October. Case numbers also rose in March then fell until September before rising again around October (BBC News, 2020b). This means that March-

October contained a large portion of the events and developments of the pandemic making this time period a relevant source for linguistic data.

The speeches from Johnson and Sturgeon were compiled into two separate corpora:

Table 1: *The public press conference speeches which constitute each corpus.*

Month	Date of Delivery	
	Boris Johnson (BJ)	Nicola Sturgeon (NS)
March	16 th	20 th
April	30 th	2 nd
May	11 th	1 st
June	3 rd	1 st
July	3 rd	1 st
August	31 st July	3 rd
September	9 th	3 rd
October	12 th	2 nd
TOTAL SPEECHES	8	8
TOTAL WORD COUNT	9,618	15,239

The first briefing by Johnson was not on March 16th as there were other smaller briefings before that. However, these were not of the same scale and intensity as the 16th, and also after the 16th is when the briefings started to be delivered daily which marks this date as a significant turning point in the UK Government's approach. Sturgeon also delivered a statement on the 17th of March, but this was to the Scottish Parliament and was not a press conference. She followed the UK Government's approach and started daily updates starting from the 20th of March. For August, the 31st of July was chosen for Johnson because he did not deliver a briefing in August, but he did deliver one on the final day in July, so this is taken to represent August. The total word count is also different; however, the raw metaphor counts were normalised per thousand words as to allow for comparison. The small size of these corpora also proves beneficial as an analysis of smaller corpora can be very detailed and fine-grained, adding to what Deignan describes as the 'richness of interpretation' (Deignan, 2005, p. 93).

These corpora were uploaded to eMargin, an online webpage which allows researchers to annotate parts of texts and write comments (<https://emargin.bcu.ac.uk/>). This webpage was used in previous research to facilitate the extraction of metaphors (Semino et al., 2018, p. 63).

2.2 Identifying Target Domains

In line with Semino et al.'s work in 2018, which analysed metaphors for cancer, a set of target domains were identified before the corpus data was analysed (Semino et al., 2018, p. 61). A target domain, which is a term from CMT, refers to the concept which is being discussed metaphorically (Lakoff & Johnson, 1980, p. 252). The reason they are defined first is because metaphor is ubiquitous in language and many conventional subjects are discussed metaphorically, e.g., time is usually discussed metaphorically in terms

of space (Boroditsky, 2000, p. 3). Conventional metaphors such as these are not of interest to this study because they do not have any ties with the research focus. Defining a set of target domains directs the analysis to the specific metaphors which are relevant to the topic of the research. In this study, the focus is metaphors for the COVID-19 pandemic. This is a very broad area with multiple different aspects.

Therefore, I defined the target domains of interest as the following:

- The COVID-19 virus
- The restrictions
- The pandemic
- Action by the governments
- COVID-19 infection rates
- Scientific data

If these target domains were discussed using metaphorical language, that linguistic data would be extracted. Moreover, identifying the target domains allows for the identification of underlying conceptual metaphors as they align with Lakoff and Johnson's source and target domain structure, i.e., THE TARGET DOMAIN IS THE SOURCE DOMAIN, like the ARGUMENT IS WAR conceptual metaphor (Lakoff & Johnson, 1980, p. 4). In this case, the target domains take the first part of this construction, e.g., THE COVID-19 VIRUS IS X.

2.3 A Method for Identifying Metaphor

There are currently no fully computational method researchers can use to extract all metaphorical language from a corpus. This means that this process must be carried out manually (Deignan, 2005, p. 92). Manual analysis is problematic because it is time consuming and does not offer completely reliable data as judging metaphorical language is difficult and subjective (Charteris-Black, 2004, p. 35; Semino, 2008, p. 14). Multiple methods have been devised to assist researchers in this manual analysis (Charteris-Black, 2004, p. 35; López & Llopis, 2010, p. 3301; Neuman et al., 2013; Sun, 2020), but one of the most popular is the Metaphor Identification Procedure (MIP) created by a group of researchers known as the Pragglejaz Group (Pragglejaz Group, 2007). The MIP offers a step-by-step process to limit the number of decisions and subjective interpretations made by the researcher(s):

- Step 1: read the text through to understand what it means.
- Step 2: identify the lexical units in the text. These can be individual words, but can also be phrasal verbs, compounds, proper nouns, polywords etc.
- Step 3: for each lexical unit, establish:
 - A – its meaning in the context of the sentence.
 - B – its most general and basic meaning in other contexts as outlined by a dictionary. The sense that should be chosen should relate to concreteness/tangibility and can be imagined and related to bodily action and lived experience. The sense chosen should also be the oldest where possible but should still be in use in modern discourse.

- C – whether the contextual meaning (A) contrasts with the basic meaning (B) but can be understood in terms of it.
- Step 4: if there is this contrast outlined by C, mark the lexical unit as metaphorical. (Adapted from Pragglejazz Group, 2007, p. 3)

This method was applied to the corpus data. An example of this is outlined in the following extract from Boris Johnson’s speech from June:

‘Now that the rate of transmission in the UK has significantly fallen from its peak, we need to take steps to manage the flare-ups and stop the virus re-emerging in the UK.’
(Johnson, 2020d)

Following Step 1, this extract concerns COVID-19 and its rate of infection in the UK. Step 2 requires that the lexical units be identified:

Now / that / the / rate / of / transmission / in / the / UK / has / significantly / fallen / from / its / peak, / we / need / to / take / steps / to / manage / the / flare ups / and / stop / the / virus / re-emerging / in / the / UK.

The MIP hinges its decision about the metaphoricity of a lexical unit entirely on the contrast between the basic and contextual meaning of the lexical unit. This is why Step 3 and 4 are the most crucial part of the process as it separates the metaphorical language from the literal. To do this, I used the Oxford English Dictionary Online (OED, 2020a) to identify the most basic and oldest meaning still in use and contrasted this with the contextual meaning. In this extract, I mark ‘fallen’, ‘peak’, ‘steps’, ‘flare-ups’, and ‘re-emerging’ as metaphorical but not the other words, most notable are ‘transmission’ and ‘stop’. Table 2 illustrates the reasons for these decisions:

Table 2: *Example of steps three and four in the MIP with an added column referring to the target domains of this study.*

Lexical Unit	Basic Meaning	Contextual Meaning	Metaphor?	Target domain
Fallen	To move from a high position to a lower one by force of gravity (OED 2020b).	The number of infections is reducing from the maximum number.	Yes	COVID-19 infection rates
Peak	The highest point on a mountain (OED 2020c).	The maximum number of COVID-19 cases.	Yes	COVID-19 infection rates

Steps	An act of bodily motion of moving the feet to facilitate walking, climbing etc. (OED 2020d).	Action taken to prevent COVID-19 outbreaks and reduce its effects.	Yes	Action by the governments
Flare-ups	Sudden burst into flames (OED 2020e)	The sudden increase of COVID-19 cases.	Yes	The COVID-19 virus
Re-emerging	To rise out of a liquid (OED 2020f).	The ability for COVID-19 to spread again in the UK.	Yes	The COVID-19 virus
Transmission	To cause something to be passed/transferred from one person to another (OED 2020g).	The number of times COVID-19 is spread between people.	No	-
Stop	To cease to move or act (OED 2020h).	To end COVID-19 effects.	No	-

The final step in marking the lexical unit as metaphorical depends on whether the contextual meaning is discussed *in terms of* the basic meaning. For example, in the instance of ‘steps’, action against COVID-19 is discussed in terms of progressive movement with the feet. Conversely, in ‘transmission’, the basic meaning is the same as the contextual meaning as they both refer to senses of transferring something from person to person.

2.4 The MIP: Problems and Solutions

The MIP provides a systematic way for identifying metaphor, but one of its biggest shortcomings is that it still requires researchers to make decisions which can potentially lead to biased and subjective data. The first decision made is in Step 2 as it requires researchers to divide the data into lexical units. Due to complexities inherent to morphology in trying to determine word boundaries, it is not clear what should be treated as a word, separate words, compounds, and so on. Researchers who created the MIP refined the procedure into the Metaphor Identification Technique Vrije Universiteit (MIPVU) and produced more

guidance about how lexical units should be identified⁴⁰. Compounds and novel words should be treated as their own lexical units, whereas the constituents making up multi-word expressions and polywords should be divided into individual parts (Steen et al., 2010, p. 186). This means that ‘flare-ups’ is treated as a singular word expression, but in ‘Test and Protect’ (Sturgeon, 2020c), both ‘test’ and ‘protect’ are treated separately. More difficult cases arise from this refinement, for example from Boris Johnson’s speech in April:

‘We have come through the peak, or rather we’ve come under what could have been a vast peak as though we’ve been going through some huge alpine tunnel, and we can now see the sunlight and pasture ahead of us. And so it is vital that we do not now lose control and run slap into a second and even bigger mountain.’ (Johnson, 2020b)

This is an extended metaphor which primarily discusses the epidemic in the UK. However, dividing each lexical unit loses the sense of the unified metaphor. For example, ‘sunlight’ and ‘pasture’ are dependent on previous lexical units ‘going’ and ‘tunnel’. A researcher could argue that this statement is one metaphor, but the requirements of the MIP state that each word must be divided and judged individually for metaphoricity. Both perspectives lose elements of granularity in the metaphor: viewing it as one metaphor means that ‘come’ and ‘going’ are not counted as two separate movement metaphors which could have implications for the overall data analysis, but dividing each lexical unit loses the context of the unifying metaphor. A solution to this, as discussed below, is to provide a real example for each lexical unit so its wider context is not lost.

Another decision that must be made by researchers is the division between basic and contextual meaning. There are many instances where this division is not so clear, for example in the word ‘stop’ as shown in Table 2. The first sense in the OED refers to blocking up a passageway. This implies that COVID-19 is moving forward and action is taken to ‘block’ this movement. However, an even more basic meaning than this which all the senses relate to is the idea of stopping general action of the virus, which the UK Government is trying to do. In instances like this where most basic meaning of a word is unclear; the MIP suggests using the oldest meaning which is still in use. The issue with this is that the OED offers multiple literal meanings and for some words it is impossible to determine which came first. Also, determining what is the most ‘basic’ meaning can be affected by researchers’ personal opinions and knowledge of the world. In this case, it was decided that the most basic meaning of ‘stop’ refers to the cessation of all action of an entity. This does not contrast with the contextual meaning, so it was not marked metaphorically. On the other hand, another researcher may have decided that the most basic meaning of ‘stop’ refers to the action of blocking movement, and they would have marked the lexical unit as metaphorical.

Difficulties such as these show that metaphorical language can be inherently difficult to notice and judge (Semino et al., 2004, p. 1272). Another example of this is the word ‘sacrifice’. This appears multiple times in the data, e.g., ‘...the public who continue to make very hard sacrifices right now’ (Sturgeon 2020f). The literal meaning of ‘sacrifice’ is an ‘offering’ (OED, 2020i). The contextual meaning refers to the act of giving something up, e.g., socialising, in order to end the pandemic and reduce its effects. Similar to ‘stop’, it is difficult to judge whether this is a metaphor — the ultimate decision lies with the researchers.

⁴⁰ The MIPVU is more complex than the MIP as it contains multiple different types of metaphor and a more difficult identification process. For the purpose of this study, I will use the original MIP, but I will use the guidance from the MIPVU discussed here.

The Pragglejaz Group’s solution for resolving subjective decisions such as these is to have several researchers make multiple ‘passes’ at the texts and convene to discuss differences (Pragglejaz Group 2007, p. 17). In a study such as this, this process is impossible. However, in order to move forward with the procedure, I applied the MIP to both corpora three times with at least two weeks apart. Each ‘pass’ allowed me to be more critical about the choices I made. I also applied the ‘When-In-Doubt-Leave-It-In’ approach, which has been used by other researchers (Semino et al., 2018, p. 63), as this ensures that no possible metaphor is missed.

The final shortcoming of the MIP is that it depends on contextual information to determine metaphoricality, but the data created at the end of the procedure is a selection of lexical units removed from context. This makes it difficult to understand how the words are actually metaphorical. This has further implications for data visualisation as shown by Table 3.

Table 3: *The raw and normalised frequencies for a selection of metaphors to describe the COVID-19 virus without examples.*

Metaphor	Total (raw)		Total (per thousand words)	
	BJ	NS	BJ	NS
campaign	2	0	0.21	0.00
fight	11	1	1.14	0.07
protect	10	47	1.04	3.08

It can be inferred that ‘fight’ is metaphorical by assuming the context, such as ‘fight the virus’, but for ‘campaign’ it is much more difficult. A solution to this is to provide a real stereotypical example for each instance of metaphor so the context can be understood.

Table 4: *The raw and normalised frequencies for a selection of metaphors to describe the COVID-19 virus with examples.*

Metaphor	Examples	Total (raw)		Total (per thousand words)	
		BJ	NS	BJ	NS
campaign	We're leading a campaign to fight back against this disease (March)	2	0	0.21	0.00

fight	our fight against coronavirus (June)	as we fight this battle against coronavirus (April)	11	1	1.14	0.07
protect	protect the NHS (April)	people working in Test and Protect and our local public health teams (August)	10	47	1.04	3.08

Despite its shortcomings, the MIP is still a very robust and common technique used in metaphor research. It is easy to use and produces quantitative and qualitative datasets for fruitful discussion, hence its continuous application across a range of different metaphor studies such as on illness (Beck, 2016, p. 78; Chircop & Scerri, 2018, p. 2625; Semino et al., 2018, pp. 57–59), finance (Cheng & Ho, 2017, p. 264); music (Pérez-Sobrino, 2014, p. 302), tourism (Jaworska, 2017, p. 166), and even previous work on metaphors and COVID-19 (Semino, 2020a).

2.5 Extracting and Compiling the Metaphors

The MIP was applied to both corpora on eMargin so that every lexical unit was read and its metaphoricity was determined. If a lexical unit was considered metaphorical, it was highlighted and underlined.

38 | But we can only do this if we keep driving the overall level of Covid infections down, and if we continue to suppress the spread of the virus. And we can only do that, if people continue to stick to the rules.

Figure 1: Extract from Sturgeon’s speech in June on eMargin demonstrating how the extraction process works. (Taken from <https://emargin.bcu.ac.uk/>)

Each highlighted metaphor then had to be grouped into a target domain (cf. Section 2.2). Doing this posed some difficulties. For example, is ‘flare-ups’ describing the COVID-19 infection rates or is it describing the COVID-19 virus? A case can be made for each of these. In terms of infection rates, ‘flare-ups’ describe how the numbers are rising rapidly like a fire. In terms of the COVID-19 virus, the virus itself is a fire which is re-lighting or ‘flaring up’ again. In each ‘fuzzy’ instance such as this, a decision had to be made about which target domain the metaphor was grouped into. In this case, I concluded that ‘flare-ups’ best fits into the COVID-19 virus target domain as it is more describing the virus itself as a ‘fire’. The multiple ‘passes’ I made on the data weeks apart elucidated the decisions made over time, so the target domains became clearer and more refined.

An Excel Spreadsheet (Microsoft Corporation, 2016) was made for each target domain and the metaphors which related to them were compiled into it:

Metaphor	Examples		COUNTS				MARCH		APRIL	
			TOTAL (raw)		TOTAL (per thousand words)		BJ use	NS use	BJ use	NS use
			BJ use	NS use	BJ use	NS use				
campaign	'We're leading a campaign to fight back against this disease (March)		2	0	0.21	0.00	2			
fight	our fight against coronavirus (June)	as we fight this battle against coronavirus (April)	11	1	1.14	0.07	2			1
protect	protect the NHS (April)	people working in test and protect and our local public health teams (August)	10	47	1.04	3.08	1	7	3	5
face	challenge that we face (March)	to reduce the risks that we face (September)	1	4	0.10	0.26	1	1		
shield	we would pause shielding nationally (August)	our advice for some children who are shielding (July)	5	1	0.52	0.07	2			1
defeat	defeat this virus (April)		1	0	0.10	0.00				1
beat	the British people have the resolve to beat this virus (October)		5	0	0.52	0.00				1
threat	the level of threat posed by the virus (May)		1	0	0.10	0.00				
front	progress on three fronts (June)	the supply and distribution of PPE to frontline staff (April)	1	3	0.10	0.20				3

Figure 2: An image of the Spreadsheet for the COVID-19 virus target domain which shows the metaphor in each month with examples, the total raw instances of the metaphor and the normalised frequency per thousand words. Only instances for March and April are shown but this Spreadsheet extends to October and the total contains all instances from March-October.

The next step was to further group together the metaphors within each target domain to understand their patterns of use. There have been many approaches in linguistics as to how concepts should be organised, e.g., into domains, frames, cognitive models, and so on (Croft & Cruse, 2004, p. 8). In studies on metaphor, metaphors are normally grouped together by their shared meaning. An approach adopted by Semino et al. (2018, p. 64) was to use the UCREL Semantic Analysis System (USAS). This gave every metaphor a semantic tag which the researchers used to group the metaphors together by their shared meaning. This approach is systematic and offers an objective process for semantic organisation, but the tags are often inconsistent and can be inaccurate and vague, for example a possible tag can be 'the universe' (Semino et al., 2018, p. 67).

The USAS is useful for larger corpora, but a more granular process can be used on smaller corpora. Chircop and Scerri's approach was to group metaphors according to the shared 'semantic field' of which the words were a part (Chircop & Scerri, 2018, p. 2625). It is unclear how they define a 'semantic field', but it is similar to a lexical field. As described by Croft and Cruse, a lexical field 'groups together words that are associated in experience... words are defined relative to other words in the same lexical field' (Croft & Cruse, 2004, p. 10).

Table 5: Example of the lexical fields into which the metaphors for the COVID-19 virus are grouped.

Lexical field	Metaphor	Examples	
		BJ	NS
VIOLENCE	campaign	We're leading a campaign to fight back against this disease (March)	
VIOLENCE	fight	our fight against coronavirus (June)	as we fight this battle against coronavirus (April)
FORCE	against	inoculating ourselves against this disease (April)	our collective efforts against Covid (October)
FORCE	strengthen	But as we grieve we are strengthened in our resolve (April)	
FORCE	engulf	the tragedy that engulfed other parts of the world (April)	
MANAGEMENT	control	Stay Alert, Control the Virus and Save Lives (May)	they make the job of everybody working to try to control this virus that much harder (August)
MANAGEMENT	contain	we are continually exploring smarter means of containing the virus (July)	give them the best chance of containing outbreaks (August)
MANAGEMENT	under control	we're getting the virus under control in the UK (June)	as we go into the winter months in keeping this virus under control (October)

The words were grouped into their lexical fields through the analysis of their meaning in context. This is because some words can differ in meaning from one context to another (Saeed, 2016, p. 57). For example, ‘engulf’ has the general sense of swallowed up powerfully (OED, 2020j). However, in Table 5, ‘engulf’ in this context refers to the strong, powerful nature of the COVID-19 virus. This links with other words with similar senses of force and power, like ‘strengthen’ and ‘against’. These similar words have shared semantic meaning which constitutes the construction of the lexical field, FORCE. In some cases, it is difficult to

group metaphors together into a lexical field as there are not enough of them in the data and they show no similarity with other metaphors. Where this is the case, their lexical field is marked as ‘MISC’.

This method is not perfect as it still requires intuitive decisions to be made about the lexical fields to which the metaphors belong; however, a purely systematic and ‘objective’ approach like the USAS tagger also requires making decisions because it can provide multiple tags for one word where only one can be chosen. This is because, as Saeed states, ‘word meaning is slippery’ (Saeed, 2016, p. 56). No solution for grouping will offer a completely objective result, but this approach allows for the general patterns of metaphor use to be identified for discussion.

2.6 Summary

This Section has outlined how the corpora were constructed, how the metaphors were extracted using the Metaphor Identification Procedure and how the metaphor data was synthesised. In each of these steps, criticisms of the method and procedure have been discussed, but so too have the solutions that were found in order to provide robust results which work as the foundation for the next Section: analysis and discussion of the metaphors for the COVID-19 crisis.

3 Results and Discussion

Section 3 is further divided into Sections which correspond to each of the target domains discussed in Section 2.2. In each Section, I will identify and compare the main metaphors used by both speakers to discuss each target domain. I discuss how these metaphors frame each target domain and if they can signal the existence of potential underlying conceptual metaphors. Section 4 offers a more detailed discussion of these metaphors and brings them together to suggest how the pandemic in general was framed by both speakers, whether there are similarities or differences in this framing and the potential impact.

3.1 Metaphors for the COVID-19 Virus

Table 6: *Metaphors used to describe and discuss the COVID-19 virus by Boris Johnson and Nicola Sturgeon. This shows the raw number and normalised frequency per thousand words of each metaphor as well as the lexical field with examples.*

Lexical field	Metaphor	Examples		Total (raw)		Total (per thousand words)	
		BJ	NS	BJ	NS	BJ use	NS use
VIOLENCE	campaign	We're leading a campaign to fight back against this		2	0	0.21	0.00

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		disease (March)					
VIOLENCE	fight	our fight against coronavirus (June)	as we fight this battle against coronavirus (April)	11	1	1.14	0.07
VIOLENCE	protect	protect the NHS (April)	people working in test and protect and our local public health teams (August)	10	47	1.04	3.08
VIOLENCE	face	challenge that we face (March)	to reduce the risks that we face (September)	1	4	0.10	0.26
VIOLENCE	shield	we would pause shielding nationally (August)	our advice for some children who are shielding (July)	5	1	0.52	0.07
VIOLENCE	defeat	defeat this virus (April)		1	0	0.10	0.00
VIOLENCE	beat	the British people have the resolve to beat this virus (October)		5	0	0.52	0.00
VIOLENCE	threat	the level of threat posed by the virus (May)		1	0	0.10	0.00
VIOLENCE	front	progress on three fronts (June)	the supply and distribution of PPE to	1	3	0.10	0.20

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			frontline staff (April)				
VIOLENCE	defence		we are the first line of defence (September)	0	3	0.00	0.20
VIOLENCE	enemy	We're fighting an invisible enemy (June)		1	0	0.10	0.00
VIOLENCE	vicious	against this vicious disease (July)		1	0	0.10	0.00
VIOLENCE	secure	continuing to work from home or attending a COVID Secure workplace (August)		10	0	1.04	0.00
VIOLENCE	cruel		It is a particularly cruel virus (April)	0	1	0.00	0.07
VIOLENCE	battle		this battle against coronavirus (April)	0	1	0.00	0.07
FORCE	cope	give our NHS the chance to cope (March)		2	0	0.21	0.00
FORCE	against	inoculating ourselves against this disease (April)	our collective efforts against COVID (October)	12	6	1.25	0.39

FORCE	strengthen	But as we grieve, we are strengthened in us resolve (April)		1	0	0.10	0.00
FORCE	engulf	the tragedy that engulfed other parts of the world (April)		1	0	0.10	0.00
FORCE	impact	reduce the impact of the virus across the globe (June)	reduce the impact of this virus (March)	1	2	0.10	0.13
FORCE	pressure	the NHS will swiftly be under intolerable pressure (October)		2	0	0.21	0.00
FORCE	overwhelm	at no stage has our NHS been overwhelmed (April)		4	0	0.42	0.00
FORCE	take on		take on the challenge of this virus (March)	0	1	0.00	0.07
FORCE	suppress	measures taken in Leicester and Luton have suppressed the virus (August)	we continue to suppress the spread of the virus (June)	2	7	0.21	0.46
FORCE	struggle	struggling to keep the virus under control	the struggle against COVID (October)	1	1	0.10	0.07

		(August)					
FORCE	squash	we can squash this virus wherever it appears (October)		1	0	0.10	0.00
FORCE	tackle	to tackle the resurgence of the virus (October)	our efforts to tackle this virus (May)	2	5	0.21	0.33
MANAGEMENT	control	Stay Alert, Control the Virus and Save Lives (May)	they make the job of everybody working to try to control this virus that much harder (August)	13	1	1.35	0.07
MANAGEMENT	contain	we are continually exploring smarter means of containing the virus (July)	give them the best chance of containing outbreaks (August)	4	6	0.42	0.39
MANAGEMENT	under control	we're getting the virus under control in the UK (June)	as we go into the winter months in keeping this virus under control (October)	7	4	0.73	0.26
MANAGEMENT	get a grip	in order to get a grip on emerging outbreaks (July)		1	0	0.10	0.00
MANAGEMENT	out of control	If it starts running out	if this virus gets out of control	1	1	0.10	0.07

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		of control again (July)	(September)				
FIRE	flare-ups	we need to take steps to manage the flare-ups (June)	we're seeing significant flare-ups (August)	1	1	0.10	0.07
FIRE	hotspot	we will restrict access to places which become hotspots for the virus (July)		1	0	0.10	0.00
FIRE	firefighting		But it is like fighting forest fires (August)	0	2	0.00	0.13
MOVEMENT	come back	I have also consistently warned that this virus could come back (August)		1	0	0.10	0.00
MOVEMENT	emerge	emerging outbreaks (July)		2	0	0.21	0.00
MOVEMENT	keep at bay		we're going to be able to keep this virus at bay (July)	0	1	0.00	0.07
MOVEMENT	past us		in these occasions when the virus gets past us (September)	0	1	0.00	0.07
MOVEMENT	through		the more we let the virus through	0	1	0.00	0.07

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			(September)				
MOVEMENT	import	ensure we don't reimport the virus from abroad (June)		2	0	0.21	0.00
MOVEMENT	run	If it starts running out of control again (July)		1	0	0.10	0.00
MOVEMENT	foothold	an attempt to stop the virus from gaining a foothold in the UK (June)		1	0	0.10	0.00
MOVEMENT	race		It takes enormous efforts and enormous resource and it's always a race against time (August)	0	1	0.00	0.07
BROKENNESS	fix		This is not a quick fix (April)	0	2	0.00	0.13
BROKENNESS	fragile		Incidents like the one in Aberdeen remind us of how fragile things are (October)	0	3	0.00	0.20
BROKENNESS	tool	so many more tools at our disposal to deal with it (August)	it is a really important additional tool in tackling	1	1	0.10	0.07

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			COVID (October)				
OPPORTUNITY	give chance to		give the virus a chance to spread (September)	0	5	0.00	0.33
OPPORTUNITY	deny chance to		continue to reduce the risk of transmission – by denying the virus opportunities to spread (August)	0	1	0.00	0.07
MISC	trouble	We must be willing to react to the first signs of trouble (August)		1	0	0.10	0.00
MISC	growing	We will have to beat this disease by our growing resolve (April)		1	0	0.10	0.00
MISC	detect		they cannot reliably detect the virus during the incubation period (April)	0	1	0.00	0.07
MISC	solution		I've said before that the app is not a magic solution (October)	0	1	0.00	0.07
MISC	address		the progress we have	0	1	0.00	0.07

			made in addressing COVID (July)				
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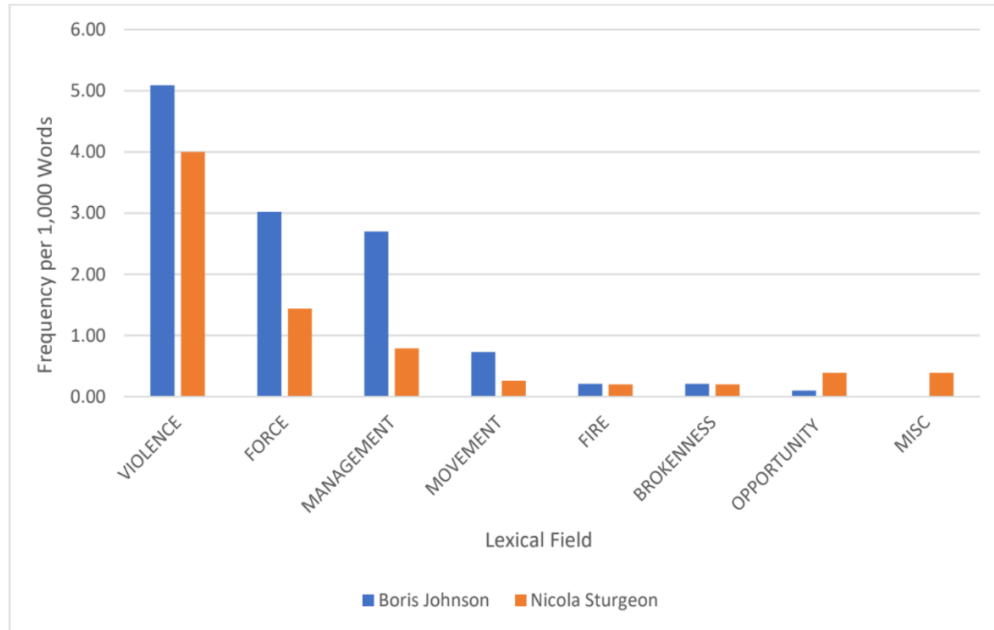


Figure 3: *The lexical fields of the metaphors in the COVID-19 virus target domain and their frequency of occurrence. The frequency is calculated by dividing the total number of metaphors in each lexical field by the word count of each corpus and normalising by 1,000 words. Following figures similar to this in each target domain contain the same calculation.*

The most salient metaphors in this lexical field all suggest that the virus is a powerful agent which moves independently in society and can make its own choices. FORCE metaphors are used by both leaders to frame the virus as something which has weight: it can ‘overwhelm’ the NHS, so it needs to be ‘tackled’ and ‘suppressed’ and we need to ‘strengthen’ ourselves against it. BROKENNESS metaphors are also similar to this which suggests that the virus is forcefully breaking society, so a ‘tool’ is needed to ‘fix’ it. MOVEMENT metaphors frame the virus as moving independently in society. It can ‘come back’ if it is not controlled, and it must be ‘kept at bay’ so it does not get ‘past us’. The virus is actually ‘moved’ by people through contact, coughing, sneezing, etc., but this framing implies that it has its own independent movement.

As a result of this, the virus needs to be managed in some way. The leaders state that it must be ‘controlled’ and ‘contained’, suggesting that it is moving throughout society and the country needs to ‘get a grip’ of it. Sturgeon also goes as far as to use OPPORTUNITY related metaphors such as ‘give’ or ‘deny chance to’ the virus which frames it as a free agent who is looking for ways to cause more harm — it is just waiting for its chance.

The systematicity of these metaphors signal a possible underlying conceptual metaphor: THE COVID-19 VIRUS IS A POWERFUL AGENT. This suggests that the leaders view the virus as something

that can move freely, and when it does it is weighty and unruly. It therefore must be ‘controlled’ and stopped from moving. These metaphors instil the virus with goals and a plan.

Furthermore, this conceptual metaphor also allows insight into how the leaders believe the virus should be stopped. The dominant lexical field in the COVID-19 virus target domain is VIOLENCE. These metaphors can be further subdivided into OFFENSIVE, DEFENSIVE and NEUTRAL violence metaphors:

Table 7: *Further division of the metaphors in the lexical field of VIOLENCE.*

Metaphor	Description	Total (raw)		Total (per thousand words)	
		BJ	NS	BJ	NS
campaign	Offensive	2	0	0.21	0
fight		11	1	1.14	0.07
defeat		1	0	0.10	0
beat		5	0	0.52	0
enemy		1	0	0.10	0
battle		0	1	0	0.70
threat		1	0	0.10	0
face		1	4	0.10	0.26
	TOTAL	22	6	2.29	0.39
protect	Defensive	10	47	1.04	3.08
shield		5	1	0.52	0.07
front		1	3	0.10	0.20
defence		0	3	0	0.20
secure		10	0	1.04	0
	TOTAL	26	54	2.70	3.54
vicious	Neutral	1	0	0.10	0
cruel		0	1	0	0.07
	TOTAL	1	1	0.10	0.07

Table 7 suggests that Johnson discusses the COVID-19 virus using many more aggressive metaphors and views it as something which needs to be attacked. On the other hand, Sturgeon uses considerably fewer offensive metaphors. She said ‘battle’ once, but this was in April, and she did not use such aggressive fight metaphors after that. She still uses VIOLENCE metaphors, but she instead foregrounds defensive elements, e.g., she states that nurses and doctors are on the ‘frontline’ but are not attacking the virus — they are acting as a line of ‘defence’ against it. A large portion of the defensive metaphors used by Sturgeon is taken up by the word ‘protect’ which appears in the phrase ‘Test and Protect’, which is the name of the track and trace service in Scotland. This service is integral to stopping the effects of the virus, so foregrounding defensive elements in such a ubiquitous name further reinforces the idea of defence and protection against the virus and backgrounds aggression.

A novel use of metaphor describes the virus as a ‘fire’ and stopping ‘flare-ups’ is like ‘firefighting’. This group of metaphors is supported by Semino because they accurately characterise the virus: in a fire, removing flammable material, like removing people by reducing contact and forcing them into isolation, can stop it spreading (Semino, 2020a). There are only a few of these metaphors used in this sample (Johnson = 2, Sturgeon = 3) which were adopted a few months into the pandemic. Although the sample size is small, these suggests different ways of framing the virus and how it can be stopped. However, the overriding metaphors frame the virus as a powerful aggressor which is moving through society with agency. Johnson describes it a violent agent which needs violent counter-measures; Sturgeon, on the other hand, views it as an aggressor but prioritises defensive tactics in her discourse. The next Section discusses metaphors for the restrictions which were put in place to stop the virus which will further illuminate the framing of the crisis.

3.2 Metaphors for the Restrictions

Table 8: *Metaphors used to describe and discuss the restrictions involved in the COVID-19 crisis*

Lexical field	Metaphor	Examples		Total (raw)		Total (per thousand words)	
		BJ	NS	BJ use	NS use	BJ use	NS use
OBJECT	ease	As lockdown eases (July)		3	0	0.31	0.00
OBJECT	relax	We relaxed the rules on meeting outside for a very specific reason (June)	And if all of that happens restrictions will have to be reimposed, rather than being relaxed (June)	3	1	0.31	0.07
OBJECT	strengthen	we are simplifying and strengthening the rules (September)		1	0	0.10	0.00
OBJECT	toughen	we are today simplifying, standardising and in some places toughening		1	0	0.10	0.00

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		local rules (October)					
OBJECT	tough	That is why it is so important that we take these tough measures now (September)	I know how tough this is, but please stick with it (April)	1	5	0.10	0.33
OBJECT	hard		Remember to physically distance, I know it's really hard (August)	0	1	0.00	0.07
OBJECT	break	Breaking these rules now could undermine and reverse all the progress (July)		3	0	0.31	0.00
OBJECT	stick		And we can only do that, if people continue to stick to the rules (June)	0	11	0.00	0.72
OBJECT	calibrate	Local lockdowns will be carefully calibrated depending on the scientific and specific circumstances (July)		1	0	0.10	0.00
OBJECT	disrupt	The answer is that we are asking people to do	There is disruption for businesses	3	1	0.31	0.07

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		something that is difficult and disruptive of their lives (March)	right now, across the economy (March)				
OBJECT	impact	lockdown has saved many hundreds of thousands of lives – but it has also had a devastating impact (July)	As we gather more hard data on how the virus is spreading in Scotland and on what impact these lockdown measures are having (April)	2	3	0.21	0.20
OBJECT	blow	I know that the steps we are taking will be a heavy blow to many people (August)		1	0	0.10	0.00
OBJECT	erode	No one, least of all me, wants to impose these kinds of erosions of our personal liberty (October)		1	0	0.10	0.00
OBJECT	lift	lockdown has not yet been lifted entirely (July)	All of us want to be able to lift more restrictions (June)	3	1	0.31	0.07
OBJECT	alleviate		our approach to changing, and hopefully alleviating, the lockdown	0	1	0.00	0.07

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			measures (May)				
OBJECT	bear down	By bearing down on social contact and improving enforcement, we can keep schools and businesses open (September)		1	0	0.10	0.00
PLACE	into	At the same time, you'll remember that international travel plummeted as countries around the world went into lockdown (June)		2	0	0.21	0.00
PLACE	out of		we can continue to move in the right direction, out of lockdown (September)	0	6	0.00	0.39
PLACE	emerge from		approach will play a part in helping us emerge gradually from lockdown (May)	0	1	0.00	0.07
PLACE	exit		as we exit lockdown (August)	0	1	0.00	0.07

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PLACE	return to	This is how we will avoid a return to full national lockdown (August)		1	0	0.10	0.00
LOCKDOWN	lockdown	Throughout the period of lockdown which started on March 23rd (May)	what impacts these lockdown measures are having (April)	19	13	1.98	0.85
MISC	follow	Because if everyone stays alert and follows the rules, we can control coronavirus (May)	it is so important to remind everyone of the advice we are asking you to follow (March)	5	6	0.52	0.39
MISC	travel corridors	we will explore the possibility of international travel corridors with countries that have low rates of infection (June)		1	0	0.10	0.00
MISC	targeted	Fourth, targeted restrictions (July)	The question then became what was the most targeted action we could take (September)	5	3	0.52	0.20
MISC	bubble	For example, if a single household or support bubble is larger than 6, they can still gather (September)		2	0	0.21	0.00

MISC	throw up	this rule of six will of course throw up difficult cases (September)		1	0	0.10	0.00
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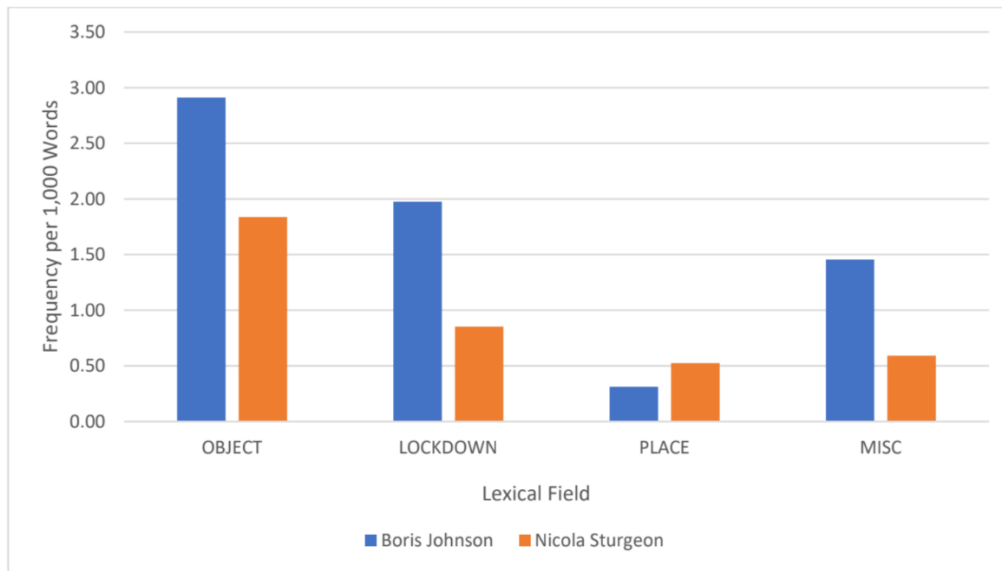


Figure 4: *The lexical fields of the metaphors in the restrictions target domain and their frequency of occurrence.*

The restrictions are what were used by the leaders to stop the effects of the virus. OBJECT metaphors are the most salient in this target domain. The metaphors within these lexical fields are all semantically similar and suggest an underlying conceptual metaphor: RESTRICTIONS ARE AN OBJECT. This conceptual metaphor is sophisticatedly developed by both speakers as they instil the metaphorical object with different features such as tangibility, weight, and volume:

Table 9: *Different metaphors in the OBJECT lexical field used to describe object features.*

Metaphor	Object Feature	Total (raw)		Total (per thousand words)	
		BJ	NS	BJ	NS
ease	Tangibility	3	0	0.31	0
relax		3	1	0.31	0.07
strengthen		1	0	0.10	0
toughen		1	0	0.10	0
tough		1	5	0.10	0.33
hard		0	1	0	0.07
break		3	0	0.31	0
flexible		0	1	0	0.07
extend		1	0	0.1	0
stick		0	11	0	0.72
blanket		1	1	0.10	0.07
	TOTAL	15	29	1.56	1.25
full	Volume	1	0	0.10	0
within		0	1	0	0.07
	TOTAL	1	1	0.10	0.07
disrupt	Weight	3	1	0.31	0.07
impact		2	3	0.21	0.20
blow		1	0	0.10	0
lift		3	1	0.31	0.07
alleviate		0	1	0	0.07
bear down		1	0	0.10	0
under		1	1	0.10	0.07
	TOTAL	10	6	1.04	0.39

The restrictions have tangibility, i.e., they can be ‘relaxed’ or ‘eased’ if society is reducing the effects of the virus, or they can be ‘strengthened’ to be made ‘hard’, so they are not ‘broken’. Sturgeon also views the restrictions as ‘sticky’, asking people to ‘stick to the rules’. The restrictions also have weight as they can ‘bear down’ on society and can be ‘lifted’; they can have an ‘impact’ and can be a hard ‘blow’. Finally, they can also have volume, e.g., lockdown can be ‘full’.

This developed frame allows both speakers to discuss the restrictions, which are abstract and complex and can affect different parts of the country in different ways, as a singular concrete object. A possible motivation behind this framing could be a reaction to the COVID-19 virus. As the virus is framed and understood as a powerful aggressor by both speakers, then something heavy, large, and strong is needed to

counteract it. Therefore, the two conceptual metaphors, COVID-19 IS A POWERFUL AGENT and RESTRICTIONS ARE AN OBJECT, interact.

Similarly, one main restriction was to place the country into ‘lockdown’. This metaphor was placed its own lexical field due to its uniqueness as it did not semantically relate to other metaphors. It was still frequent in the data meaning that it could not be simply placed in MISC. It is a term that is originally referred to the enforced confinement in prison for security purposes (Poole, 2020). This framing further emphasises the COVID-19 IS A POWERFUL AGENT conceptual metaphor because society needs to be ‘locked’ away from the virus. This reinforces the danger of COVID-19 and its ability to overcome simple restrictions; it takes the maximum level of confinement possible to stop its effects on society.

Another interesting metaphor used by both speakers frames ‘lockdown’ as a place which we can go ‘into’, come ‘out of’, ‘exit’ or ‘emerge from’. This suggests that society is moving forward, perhaps on a ‘journey’, and ‘lockdown’ is a place on that journey which society is trying to move away from but is forced to ‘return to’ because of the virus. There are few of these metaphors for the restrictions which are overshadowed by the OBJECT metaphors; however, they do link with the next Section which covers metaphors for the pandemic and further explores the ‘journey’ frame.

3.3 Metaphors for the Pandemic

Table 10: *Metaphors used to describe and discuss the COVID-19 pandemic target domain.*

Lexical field	Metaphor	Examples		Total (raw)		Total (per thousand words)	
		BJ	NS	BJ use	NS use	BJ use	NS use
JOURNEY	entering	We are entering a new and crucial phase (October)	phase 1, which we entered on Friday (June)	1	1	0.10	0.07
JOURNEY	move	As we move to the next stage of our fight against coronavirus (June)	we can continue to move in the right direction (August)	2	3	0.21	0.20
JOURNEY	return	allow life to return closer to normality (September)	allow a return – a very careful return – to greater	3	2	0.31	0.13

			normality (July)				
JOURNEY	close	closer to normal before Christmas (September)		2	0	0.21	0.00
JOURNEY	brake	putting on the brakes and re imposing restrictions (July)		3	0	0.31	0.00
JOURNEY	long haul		we are in this for the long haul (April)	0	1	0.00	0.07
JOURNEY	tunnel		see some light at the end of the tunnel (June)	0	1	0.00	0.07
JOURNEY	ease up		But that progress is fragile and if we ease up now (June)	0	2	0.00	0.13
JOURNEY	setback		potential setbacks in the weeks ahead (July)	0	1	0.00	0.07
DIVISION	stage	the next stage of our fight against coronavirus (June)	an early stage in this pandemic (September)	3	4	0.31	0.26
DIVISION	phase	in phase one of this disease (May)	It is important now and will be important in the next phase (May)	2	5	0.21	0.33
CONTAINER	in		we all have to play our	0	3	0.00	0.20

			part in this (September)				
MISC	hard		we know times are hard (March)	0	1	0.00	0.07

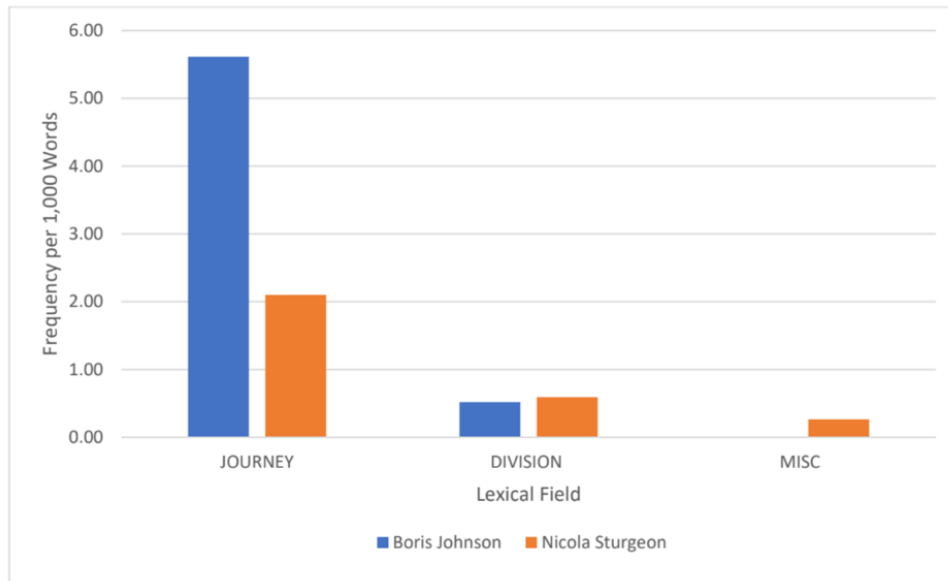


Figure 5: *The lexical fields of the metaphors in the pandemic target domain and their frequency of occurrence.*

This target domain describes the pandemic in general as a singular concept. Figure 5 shows that the pandemic is described by both speakers overwhelmingly as a ‘journey’. Similar to other target domains, it is sophisticated and has many features which can be further broken down and analysed:

Table 11: *Further breakdown of the JOURNEY metaphors.*

Metaphor	Feature of Journey	Total (raw)		Total (per thousand words)	
		BJ	NS	BJ	NS
entering	Places	1	1	0.10	0.07
return		3	2	0.31	0.13
close		2	0	0.21	0
woods		1	0	0.10	0
there		4	0	0.42	0
(light at the end of the) tunnel		0	1	0	0.07
approaching		1	0	0.10	0

past		2	0	0.21	0
ahead		1	0	0.1	0
coming		1	0	0.10	0
	TOTAL	16	4	1.66	0.26
move	Movement	2	3	0.21	0.20
ease up		0	2	0	0.13
progress		10	10	1.04	0.66
through		3	1	0.31	0.07
	TOTAL	15	16	1.56	1.05
brake	Mode of Transportation	3	0	0.31	0
reverse		1	2	0.10	0.13
steps		16	3	1.66	0.2
strides		0	1	0	0.07
lose control		1	0	0.10	0
run		1	0	0.10	0
	TOTAL	22	6	2.29	0.39
road	Terrain	1	0	0.10	0
long haul		0	1	0	0.07
slog		0	3	0.00	0.20
	TOTAL	1	4	0.10	0.26
setback	Obstacles	0	1	0	0.07
	TOTAL	0	1	0	0.07
route map	Navigation	0	1	0	0.07
	TOTAL	0	1	0	0.07

From this data, it suggests that both speakers have the conceptual metaphor THE PANDEMIC IS A JOURNEY. This conceptual metaphor also contains elements of the Invariance Hypothesis of conceptual metaphor, which was developed by Lakoff as part of CMT. This is when the mapping between the source and the target domain preserves the fine structural details of the source domain (Lakoff, 1990, p. 54). In this case, the detailed features of a JOURNEY, like places seen on a journey, the mode of transport taken, the obstacles encountered, the type of the path taken, etc., are mapped onto the PANDEMIC. The effect of this is that it allows the pandemic to be almost entirely discussed in terms of a journey.

A journey involves movement in some way and both speakers understand that society is ‘moving’ which is expressed by equal instances of ‘progress’. They are moving along a terrain which is ‘long’ and is a difficult ‘slog’. But society is not just moving aimlessly. Like on a journey, a final destination is envisioned which is being moved towards. In this case, the final destination is ‘normality’ which is where society started but is venturing away from due to the virus. This is suggested by metaphors like ‘return to’

normality, aiming to get ‘there’, being ‘close’ and trying to ‘get out of the woods’ and reach the ‘light at the end of the tunnel’.

There is some suggestion that Johnson develops this conceptual metaphor much more than Sturgeon as he uses more journey related metaphors in discourse surrounding the pandemic. Johnson describes different places along the journey, understanding the infection rate curve as a place which can be ‘coming’ at us. He also states that London is ‘ahead’ which suggests that different cities are on the journey and have different speeds depending on their level of infection. Additionally, he discusses modes of transport in the journey focusing on walking as shown in several instances of ‘steps’. Sturgeon still views the pandemic as a journey, but uses considerably fewer metaphors in this case. She understands the country as ‘moving’, but does not foreground elements such as place and modes of transportation. She does discuss elements of the terrain of the journey, obstacles on it and how to navigate it with a ‘route map’. The difference in the number of metaphors used is discussed in the following Section.

This conceptual metaphor also interacts with metaphors which describe restrictions as a ‘place’ (cf. Table 8). ‘Lockdown’ is frequently described as a place which people can ‘emerge from’ or go ‘into’. This suggests that on this journey, ‘lockdown’ is one of the destinations on the road to normality which people are trying to get away from but are forced to ‘return to’ because of the virus. The next Section discusses the action taken by both governments to try and ‘get back to normality’ and make the ‘journey’ as easy as possible.

3.4 Metaphors for the Action by the Governments

Table 12: *Metaphors used to describe and discuss the action by the governments during the COVID-19 crisis.*

Lexical field	Metaphor	Examples		Total (raw)		Total (per thousand words)	
		BJ	NS	BJ use	NS use	BJ use	NS use
MOVEMENT	bring forward	bringing forward the right measures at the right time (March)		1	0	0.10	0.00
MOVEMENT	bring in	Why bring in this very draconian measure? (March)		1	0	0.10	0.00
MOVEMENT	go	we may need to go	we are going ahead with	5	1	0.52	0.07

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		further (August)	many of the Phase 2 changes (July)				
MOVEMENT	explore	we will explore the possibility of international travel corridors with countries (June)		3	0	0.31	0.00
MOVEMENT	move	We will of course study the data carefully and move forward with our intention to open up (August)	the expansion of testing that I set out today is separate and distinct from our move to establish a Test, Trace, Isolate system (May)	3	1	0.31	0.07
MOVEMENT	step in		if we don't do our job, Test & Protect steps in (September)	0	2	0.00	0.13
MOVEMENT	expand		I can confirm that we will now expand that approach (May)	0	13	0.00	0.85

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MOVEMENT	extend	we should extend this advice to mass gatherings as well (March)	that means we can further extend eligibility for testing (May)	3	3	0.31	0.20
MOVEMENT	tackle	everyone responsible for tackling these problems (April)		1	0	0.10	0.00
MOVEMENT	throwing	We are throwing everything at it, heart and soul, night and day (April)		1	0	0.10	0.00
MOVEMENT	push		We welcome the support the UK Government has announced so far but we are pushing them to do more (March)	0	1	0.00	0.07
WEAPONS	aim	as long as the data allows, we aim to allow (May)	we are aiming to reach 8,000 by the middle	2	2	0.21	0.13

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			of this month (May)				
WEAPONS	target	we have the ability to target that capacity at local areas (July)	Test and Protect enables us to be much more targeted and proportionate (September)	2	6	0.21	0.39
THEATRE	play a part	I know we are going to beat this – if each and every one of us plays our part (August)	Fundamentally we all have to play our part in this if we are going to succeed (September)	4	6	0.42	0.39
THEATRE	play		try to keep transmission under control - and what part Test & Protect plays in that (September)	0	2	0.00	0.13
THEATRE	perform		The really important role Test & Protect has to perform for us (September)	0	1	0.00	0.07

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MISC	build		we are building towards being able to carry out 3,500 tests per day (April)	0	3	0.00	0.20
MISC	flow		We will also use our procurement systems and government contracts to keep financial support flowing (March)	0	1	0.00	0.07
MISC	face	the logistical problems we have faced in getting the right protective gear (April)		1	0	0.10	0.00
MISC	response	I will firsthand over to Chris to take us through the latest data before I set out how we are responding to it (September)	I want to provide you with a further update on Scotland's response to the Covid-19 epidemic (April)	3	2	0.31	0.13

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MISC	open up	our intention to open up as soon as we possibly can (August)		1	0	0.10	0.00
MISC	scrap	That doesn't mean we're going to scrap the programme entirely (September)		1	0	0.10	0.00
MISC	put		the government takes action to put money into people's pockets (March)	0	1	0.00	0.07
MISC	moonshot	Our plan – this moonshot that I am describing (September)		1	0	0.10	0.00

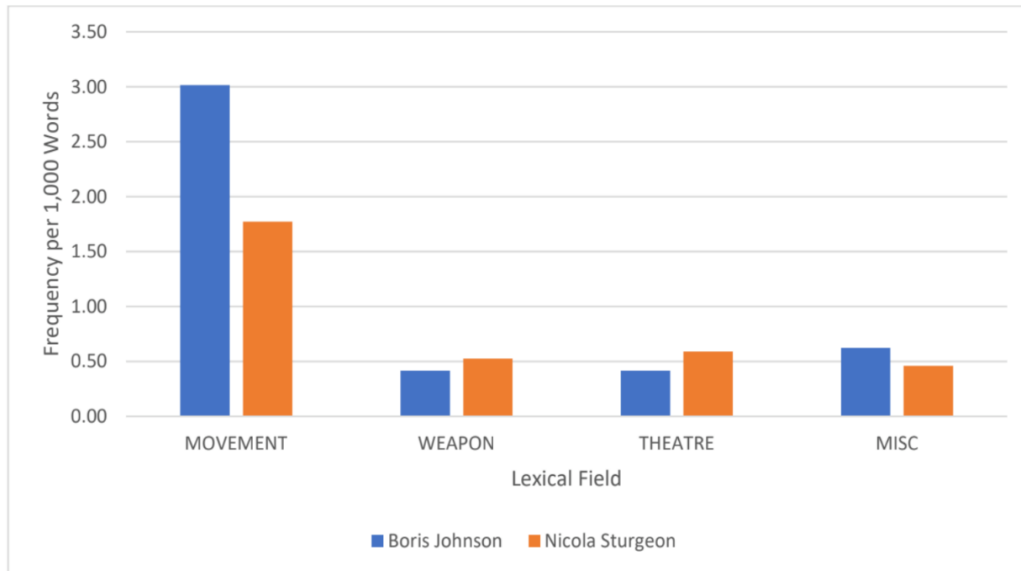


Figure 6: *The lexical fields of the metaphors in the action by the government's target domain and their frequency of occurrence.*

The largest proportion of metaphors used to discuss the action by the governments during the COVID-19 pandemic is taken up by MOVEMENT metaphors. Many of these are similar to the JOURNEY metaphors discussed in the previous Section, but they also refer to the general animated movement of the speakers:

Table 13: *Features of the MOVEMENT metaphors used by both leaders.*

Metaphor	Types of Movement	Total (raw)		Total (per thousand words)	
		BJ	NS	BJ	NS
go	Movement on a Journey	5	1	0.52	0.07
explore		3	0	0.31	0
move		3	1	0.31	0.07
lead		3	0	0.31	0
overcome		2	0	0.21	0
approach		5	6	0.52	0.39
step in		0	2	0	0.13
	TOTAL	21	10	2.18	0.66
work though	General Movement	1	0	0.1	0
expand		0	13	0	0.85
extend		3	3	0.31	0.20
bring forward		1	0	0.10	0
bring in		1	0	0.10	0
tackle		1	0	0.10	0
throwing		1	0	0.10	0
push	0	1	0	0.07	
	TOTAL	8	17	0.83	1.12

Both leaders further describe the pandemic as some kind of ‘journey’ suggested in metaphors such as ‘going forward’ with decisions, having different ‘approaches’ to problems, ‘moving’ to make choices, and so on. There are also more general movement metaphors which do not suggest a journey but suggest some kind of animated action by both governments. They ‘bring in’ different measures which they then ‘expand’ and ‘extend’, suggesting physical movement and also the physicality of the measures themselves (cf. Table 9). The high frequency of these metaphors suggest that the governments are physically exerting themselves to end the crisis. The pandemic is complex and changing; therefore, physical, strenuous action is needed. This further develops the COVID-19 VIRUS IS A POWERFUL AGENT conceptual metaphor as if the virus is moving fast in society with its own freewill, the UK and Scottish Government so too have to ‘move’ quickly. This is also echoed in FORCE metaphors like ‘tackle’ and ‘throwing everything at it’.

A novel use of metaphor are metaphors which relate to the theatre, such as the governments ‘playing a part’ and health services ‘performing a role’. There is not enough data to suggest an underlying conceptual metaphor such as THE PANDEMIC IS A PLAY; however, these metaphors illuminate the metaphorical repertoire available to discuss aspects of the pandemic and strategy towards it. Weapon metaphors are also somewhat frequent, but are more general and do not suggest aggression, such as ‘our aim’ and ‘we target’. The overriding metaphors used to describe this target domain are movement metaphors which further reinforces the conceptual metaphors THE PANDEMIC IS A JOURNEY and the COVID-19 VIRUS IS A

POWERFUL AGENT. Similar to these conceptual metaphors is the COVID-19 infection rates target domain discussed in the next Section to reveal further framing of aspects of the crisis.

3.5 Metaphors for COVID-19 Infection Rates

Table 14: *Metaphors used to describe and discuss the COVID-19 infection rates.*

Lexical field	Metaphor	Examples		Total (raw)		Total (per thousand words)	
		BJ	NS	BJ use	NS use	BJ use	NS use
NATURAL WORLD	peak	the rate of transmission in the UK has significantly fallen from its peak (June)	the peak of the outbreak (June)	12	1	1.25	0.07
NATURAL WORLD	through	We have come through the peak (April)		2	0	0.21	0.00
NATURAL WORLD	under	we've come under what could have been a vast peak (April)		1	0	0.10	0.00
NATURAL WORLD	slope	we are on the downward slope (April)		1	0	0.10	0.00
NATURAL WORLD	mountain	run slap into a second and even bigger mountain (April)		1	0	0.10	0.00

NATURAL WORLD	wave	prevent a second wave of the virus reaching the UK (June)		3	0	0.31	0.00
NATURAL WORLD	spike	the spike in Leicester (July)		2	0	0.21	0.00
NATURAL WORLD	growth	the fast growth part of the upward curve (March)		1	0	0.10	0.00
MOVEMENT	slow	slowing the spread of the disease (March)	slow down the spread of this virus (March)	4	3	0.42	0.20
MOVEMENT	creeping up	those numbers creeping up (July)		1	0	0.10	0.00
MOVEMENT	pace	the virus is now gathering pace (July)		1	0	0.10	0.00
MOVEMENT	other direction		gone in the other direction today (July)	1	0	0.00	0.07
MOVEMENT	spring up		the number of cases and the number of clusters and the number of outbreaks that will spring up	0	1	0.00	0.07

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			(September)				
HEIGHT	fall	infection rate is falling (April)		3	0	0.31	0.00
HEIGHT	lift	lift R or the reproduction rate of that disease back above one (April)		1	0	0.10	0.00
HEIGHT	drive down	drive this virus down (September)	we keep driving the overall level of COVID infections down (June)	1	1	0.10	0.07
HEIGHT	keep down	that keeping the R down is going to be absolutely vital to us recovery (April)		4	0	0.42	0.00
HEIGHT	bring down	bring the R level down (May)		3	0	0.31	0.00
MISC	wake-up call		the situation... I really think should be a wake-up call for all of us (September)	0	1	0.00	0.07

MISC	flashing	These tables are flashing at us like dashboard warnings in a passenger jet (October)		1	0	0.10	0.00
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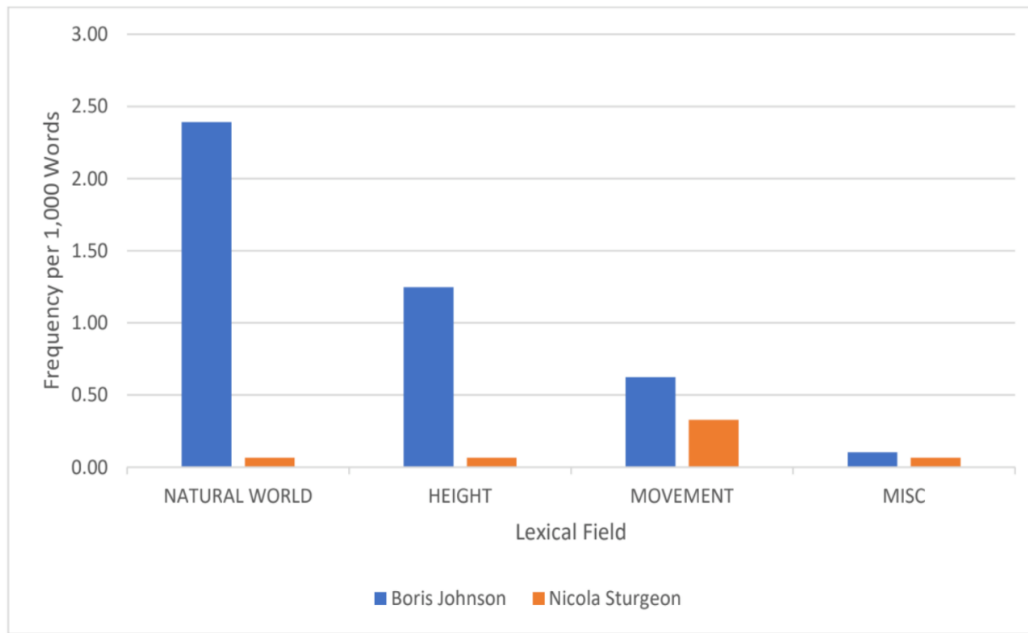


Figure 7: *The lexical fields of the metaphors in the COVID-19 infection rates target domain and their frequency of occurrence.*

COVID-19 Infection Rates is its own target domain as it is different from the biological virus itself and instead refers to the numbers which indicate its presence in society. Both speakers converge in their understanding of the infection rates as ‘moving’, e.g., they can be ‘slow’, they can have ‘pace’, they can go in the ‘other direction’ and so on. This is similar to the COVID-19 IS A POWERFUL AGENT conceptual metaphor as it frames COVID-19 as having agency in terms of movement through space. This is understandable as the infection rates appear like they are ‘moving’ because of reductions and increases in number; however, this particular framing implies the numbers have physical movement which suggests that the COVID-19 virus itself is moving.

Sturgeon is noticeably absent in this target domain, whereas Johnson uses many metaphors to discuss the infection rates. The most prominent are NATURAL WORLD metaphors, such as ‘peak’ and ‘waves’ of infections; ‘slopes’, ‘mountains’ and ‘spikes’; and the ability for numbers to ‘grow’. Johnson also understands the infection rates as having height, i.e., the need to be ‘kept down’ and be made to ‘fall’. This

suggests that Johnson is metaphorically framing literal graphs and curves of the pandemic as natural objects like mountains, whereas Sturgeon is does not discuss these aspects metaphorically and presents the infection rates much more literally.

The final target domain under discussion here is the scientific data target domain which will provide the last example of framing of the crisis from both speakers⁴¹.

3.6 Metaphors for the Scientific Data

Table 15: *Metaphors used to describe and discuss the scientific data target domain.*

Lexical field	Metaphor	Examples		Total (raw)		Total (per thousand words)	
		BJ	NS	BJ use	NS use	BJ use	NS use
MOVE MENT	guide	we are being guided by the science (April)	the information coming through Test & Protect guided us in the decisions we took (September)	1	2	0.10	0.13
MOVE MENT	guidance	that guidance remains unchanged (August)		4	14	0.42	0.92
MOVE MENT	led		that analysis and intelligence led us (September)	0	2	0.00	0.13
MOVE MENT	follow	close down premises and cancel events which are not following COVID Secure guidance (August)	as we go into this weekend and beyond, need to follow the guidance (March)	1	11	0.10	0.72

⁴¹ In this target domain and the following, tables which further break down the metaphors into their different qualities, like in previous Sections, are not provided due to the small number of the metaphors in each target domain.

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MOVE MENT	driven		they are driven by the evidence (September)	0	3	0.00	0.20
OBJEC T	based on	everything we do is based scrupulously on the best scientific advice (March)		2	0	0.21	0.00
OBJEC T	hard		As we gather more hard data (April)	0	1	0.00	0.07
COMM UNICA TION	says	only if the data says it safe (May)		1	0	0.10	0.00
COMM UNICA TION	tells	the data tells us is driving the current increase in cases (August)	this week's statistics again tell of the real and sustained progress that we are making (July)	1	2	0.10	0.13
MISC	in light of	look again at the measures we have in place nationally in light of the data (August)		1	0	0.10	0.00

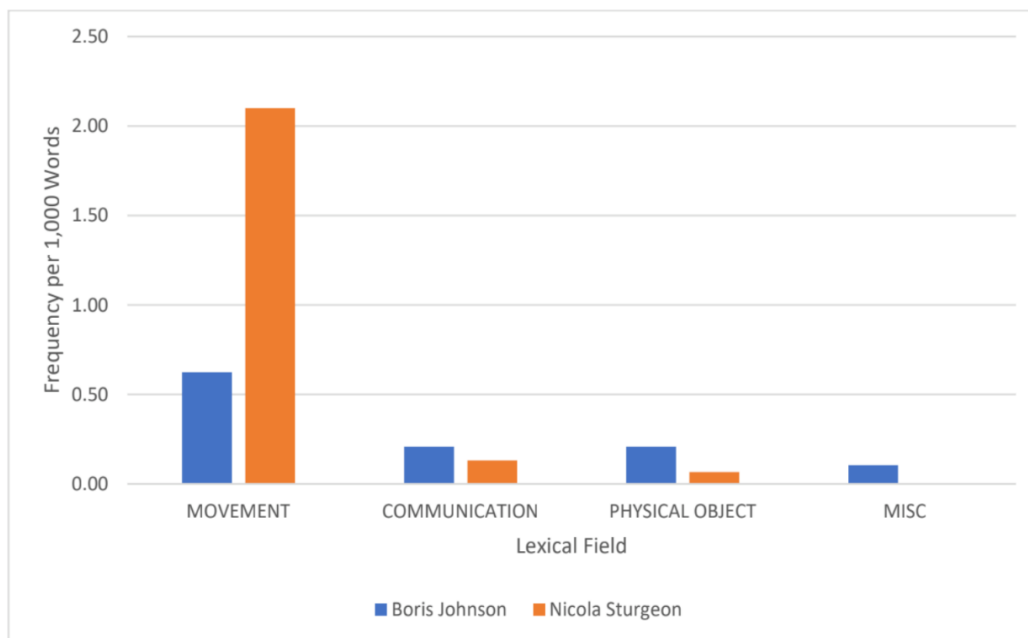


Figure 8: *The lexical fields of the metaphors in the scientific data target domain and their frequency of occurrence.*

The main metaphors used by both speakers understand scientific data as ‘moving’. Specifically, it is described as ‘guidance’ which people should ‘follow’. It also ‘guides’, ‘drives’, and ‘leads’ both governments’ decision making. It also has elements of communication, it can ‘say’ what is safe and it ‘tells’ policy makers what to do. These metaphors personify scientific data as a wise guide who is leading us through the pandemic. In conceptual metaphor terms, this can be written as SCIENTIFIC DATA IS A GUIDE. This is fundamentally linked to THE PANDEMIC IS A JOURNEY conceptual metaphor: on this journey the ‘data’ is a guide which we are ‘following’.

The potential impact of these metaphors, as well as overall similarities and differences, are discussed in the following Section.

4 Shared Metaphors

The systematicity and frequency of similar metaphors used to discuss each target domain suggests that there are several underlying conceptual metaphors shared by both speakers:

- THE COVID-19 VIRUS IS A POWERFUL AGENT
- RESTRICTIONS ARE AN OBJECT
- THE PANDEMIC IS A JOURNEY
- SCIENTIFIC DATA IS A GUIDE

These conceptual metaphors shared by both speakers generate the metaphors found in their speech and frame aspects of the pandemic in similar ways. Both speakers understand the pandemic as a ‘journey’ where everyone is trying to get back to the final destination of ‘normality’. They have been taken away from

normality due to the crisis, but they struggle to get back there and follow scientific data as a ‘guide’ to try and ‘return’. However, negatively affecting this move ‘forward towards’ normality is the COVID-19 virus. It is described as a powerful agent with freewill which is physically harming both nations. In order to stop the COVID-19 virus’ negative effects, each government has weighty and powerful restrictions which have an ‘impact’. The effect of this overall framing causes the complex and frightening experience of the crisis to be grounded in everyday lived experience. Something like a virus is difficult to see and understand, whereas concepts like weight and power, instilled in the virus and the restrictions, can be more easily understood. Moreover, describing the pandemic as a ‘journey’ gives it a destination, i.e., ‘normality’, and a way to get there, such as by ‘moving forward’. The lived experience of a ‘journey’ allows the crisis, which seems to be continuous and without end, to have a general goal in mind to ‘keep people going’ in a sense.

This essay has not conducted any experimental study to examine the potential impact of these metaphors on public perception. However, previous research has revealed some findings which can be applied to this data to provide a wider discussion about the impact of these metaphors in society. Research on journey metaphors in the context of a disease like cancer suggests that they can have positive effects on listeners and readers. One study found that there was a correlation between ‘journey’ metaphors and someone being more likely to make peace with their illness (Hendricks et al., 2018, p. 271). Journey metaphors also contain the idea sharing, as in ‘sharing the journey’ with someone (Semino et al., 2017, p. 64). When applied to a difficult situation, like a debilitating illness or a global pandemic, journey metaphors foreground the aspect that we are on the road ‘together’ in a shared experience. This is especially the case considering that scientific data is ‘on the journey’ with us and leads us along. As a result of these positive effects, journey metaphors have been praised by some metaphor researchers (Nerlich, 2020b).

4.1 Divergent Metaphors

There is a range of subtle differences between the speakers. These can be divided into differences in the number of metaphors and differences in the type of metaphors. In terms of the number of metaphors between the two speakers, Johnson generally uses more metaphors for each lexical field across all target domains (except from when scientific guidance is described as a ‘guide’ as Sturgeon is much more frequent in this area). This variability could be attributed to the overall difference in metaphor use between the speakers as Johnson uses many more metaphors than Sturgeon (35.1 per 1,000 words compared with 21.5 per 1,000 words). Also, it has been noted that Johnson’s language is noticeably more elaborate than other politicians and contains higher use of metaphor (Hayward, 2019). It is therefore difficult to discuss the potential impact of metaphor frequency due to this general variability and difference in speech style.

What is more significant and clearer to discuss is the differences in the type of metaphors chosen by both speakers. One such difference is that Johnson chooses to use metaphors to describe the COVID-19 infection rates, such as ‘peak’, ‘mountain’, ‘slope’ etc., whereas Sturgeon chooses not to metaphorically frame this target domain. COVID-19 infection rates are sometimes complex and can be difficult to understand. Metaphor is frequently used to explain scientific concepts like this to a lay audience (Kampourakis, 2016, p. 947). Johnson, although not a scientist, is following this convention by describing the infection rates in terms of natural objects. However, it has been noted that some metaphors for scientific concepts can potentially mislead listeners. Kampourakis (2016, p. 947) notes that because of the ability of metaphor to foreground some information and background others, the public may ‘overlook’ aspects of a concept not included in the metaphor. This was demonstrated in a study on metaphors for the climate where

researchers found that high school pupils sometimes came to wrong conclusions about aspects of the climate because the metaphors they read did not include all the necessary information (Deignan et al., 2019, p. 399).

This research can be applied to Johnson's use of natural world metaphors. For example, the 'peak' of a mountain is often considered a goal because it is the limit and anything beyond it is smaller and easier in comparison. The coronavirus, on the other hand, has shown that even past the 'peak' of infections, the pandemic still poses numerous threats, such as economic challenges and the ability to find a vaccine (and, more recently, the effect of new mutations). Moreover, natural peaks of a mountain cannot rise again. Passing the 'peak' is a milestone and only downhill remains. As Johnson states, we are on the 'downward slope' (cf. Table 14). However, in the case of COVID-19, it has been shown that there can be multiple 'peaks' and numbers can start to rise again. Johnson's framing of the infection rates as a 'mountain' could have potentially negative effects on public understanding of the crisis as it overlooks these crucial aspects of virus. Sturgeon's notable avoidance of these type of metaphors suggests she discusses infection rates in more literal terms and avoids this potential impact.

Another key difference between the speakers is how they use violence metaphors: Johnson foregrounds violence when framing the COVID-19 virus as a powerful agent, whereas Sturgeon focuses on defensive elements. Johnson's metaphors frame the virus as an aggressor and the action taken to defeat it as violent. The effect of this is that it generally frames the pandemic as a 'war' between the virus and the people, as shown in the numerous instances of 'fight'.

War metaphors are used commonly in public discourse surrounding viruses and disease (Flusberg et al., 2018, p. 1). These violent metaphors have potential harmful effects as evidence has shown that they can negatively affect people's emotions. For example, they can make people feel guilty if they catch a disease as they have not 'fought hard enough' (Flusberg et al., 2018, p. 9). Experimental work on cancer has shown that violent metaphors can make cancer treatment seem more difficult which caused people to become fatalistic about the disease. This negatively impacted people's behaviour as it made them less likely to take steps to avoid developing the disease (Hauser & Schwarz, 2020, p. 1703). Extending this to the pandemic, constant aggressive framing of the pandemic as a violent 'fight' could mean that people take fewer steps to prevent catching and spreading the virus. This evidence highlights the potential negative effects of war metaphors and could explain why Johnson has been repeatedly criticised for his use of aggressive violence metaphors by political commentators (Tisdall, 2020; Clark, 2020), metaphor researchers in the #ReframeCOVID project (Semino, 2020b; Nancy, 2020) and health professionals (Marron et al., 2020, p. 625).

On the other hand, war metaphors can 'motivate people to pay attention' and take action (Flusberg et al., 2018, p. 6). In the pandemic, everyday actions had to be changed immediately. Violence metaphors could have stimulated this by emulating a violent situation which heightens the senses. Moreover, experimental work on cancer has found that violence metaphors can sometimes be empowering, e.g., people can be 'fighters' against the disease which emphasises feelings of solidarity (Semino et al., 2017, p. 63).

This shows that violence metaphors are not entirely negative, nor positive. However, the widespread criticism of violent metaphors which have been used by Johnson do suggest that their impact has been negative. Sturgeon's choice not to use aggressive violent metaphors could suggest that she recognised these negative effects, hence her decision to foreground defensive elements.

4.2 Summary

Both speakers generally frame aspects of the pandemic in similar ways, such that we are on a ‘journey’ towards ‘normality’ and ‘follow’ scientific data to get there but are disrupted by the powerful COVID-19 virus and must use restrictions to stop it.

Despite some subtle differences in the types of metaphors chosen, such as Johnson’s more violent framing of the virus and natural world metaphors to describe infection rates, this similar framing subsists despite the two leaders having different policy approaches to the pandemic.

Previous research on these metaphors suggest that journey metaphors have a positive impact as they promote features such as togetherness and provide goals. This can be reassuring and can create a sense of peacefulness and direction. On the other hand, war and violence metaphors, although having potentially positive implications, have an overall more negative effect on the public perception as they have been shown to harm emotion and behaviour. Natural world metaphors may also mislead as they do not cover all major aspects about the virus and its rate of infection.

5 Conclusion

This essay has extracted the metaphors used by Nicola Sturgeon and Boris Johnson to discuss aspects of the COVID-19 pandemic between March and October 2020. From these quantitative results, I have discussed how the speakers frame aspects of the crisis: they both understand the pandemic as a journey towards normality where society follows scientific data and uses robust restrictions as a counter against the powerful COVID-19 virus which is instilled with force and weight. A divergence in metaphor use was also found between the two speakers: Johnson uses more violent metaphors which foreground aggression against the virus, whereas Sturgeon foregrounds defence. Johnson also frames the infection rates using natural world metaphors, whereas Sturgeon uses few metaphors to discuss this concept. Finally, I grounded the discussion of these framing effects in previous metaphors research to suggest their potential impact on public perception of the crisis.

6 Further Research

As mentioned in 4.1, determining the effect of metaphors on reasoning and thought of listeners is difficult without an experimental study. This thesis has quantitatively identified the metaphors from both speakers and found the general framing of aspects of the crisis as well as some subtle differences. Future research can then use this evidence to construct experimental studies, similar to Thibodeau and Boroditsky’s (2011) study on CRIME IS A VIRUS/BEAST, which examines the effects of the framing on participants. Of particular interest is the difference between describing the COVID-19 virus as something that needs to be ‘fought’ and something which needs to be ‘protected’ against. The significance of the journey frame also needs further investigation. It has been argued that the journey frame is beneficial, however, it may also negatively affect people’s behaviour. For example, viewing the pandemic as a ‘journey’ may elicit different ‘paths/routes’ to get back to normality. Also, constant framing of restrictions as ‘tough’ and ‘hard’ which ‘bear down’ on society could have negative impact on the emotions of people if they are used continuously throughout time.

A further avenue of research created by this project is to compare this data from Scotland and the UK to other countries to understand different framing techniques around the world. This could illuminate cultural differences in understanding the pandemic and its major aspects. For example, other countries have

pushed the war framing, such as the US executive who declared ‘war’ on the virus (Bates 2020: 5), whereas other countries, like Germany, avoid this framing entirely (Paulus 2020).

Finally, there was no space in this study to discuss the effect of time on these metaphors. However, the data does allow for this analysis as it charts the number of metaphors used across each month (cf. Figure 2). A potential future study could examine if metaphors develop and change as the pandemic progresses. This could suggest a shifting reasoning. There is already evidence of this happening, for example the ‘journey’ has now become a ‘race’ for a vaccine (BBC News 2021).

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