

'CATCH IT, BIN IT, KILL IT'

On the metaphorical conceptualisation of the 2009 swine flu pandemic in British media texts¹

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Abstract

This paper investigates the use of conceptual metaphors in a corpus of news texts on swine flu, published in the British Sunday press between April 2009 and February 2010. All metaphors were systematically identified and categorised in a two-step method, which involved a linguistic and a conceptual analysis. In line with Conceptual Metaphor Theory, well-established conceptual metaphors are used to encode a new and rapidly spreading disease, the nature and effects of which were unknown in the earliest phases of its outbreak. The quantitative analysis shows a strong decrease in metaphor frequency over time. The qualitative results suggest that the early conceptualisation of the pandemic was structured by metaphors such as A VIRUS IS A KILLER and DISEASE IS AN OBJECT/A POSSESSION, which focus on the virus as a threat and on individuals who are affected. I will show how both metaphors contribute to a more sensationalist reporting, the media scare.

Dieser Artikel untersucht konzeptuelle Metaphern in einem Korpus von Zeitungsartikeln zum Thema Schweinegrippe, die im Zeitraum von April 2009 bis Februar 2010 in der britischen Sonntagspresse veröffentlicht wurden. Alle Metaphern wurden systematisch nach sprachlicher und konzeptueller Analyse ermittelt und kategorisiert. Wie die konzeptuelle Metapherntheorie erwarten lässt, wird eine neue, sich rasch verbreitende Krankheit, deren Art und Ausmaß zu Beginn des Ausbruchs noch unbekannt waren, durch bestimmte konventionelle konzeptuelle Metaphern beschrieben. In der quantitativen Analyse zeigt sich, dass die Frequenz von Metaphern über die Zeit deutlich abnimmt. Die qualitativen Resultate deuten darauf hin, dass die Pandemie besonders zu Beginn durch Metaphern wie EIN VIRUS IST EIN KILLER und KRANKHEIT IST EIN OBJEKT/EIN BESITZ, konzeptualisiert wurde. Es soll hier gezeigt werden, wie diese Metaphern, die das Virus als Gefahr porträtieren sowie Betroffene in den Fokus nehmen, zu einer sensationsorientierten Presse und Panikmache beitragen.

1 Introduction

1.1 "CATCH IT, BIN IT, KILL IT"

In late April 2009, a new topic appeared in the news: swine flu, the killer virus. The fear of a potentially dangerous pandemic flu², mostly referred to as swine

1 This paper is based on parts of my MA thesis at the University of Basel (2010), which was supervised by Prof. Dr. Heike Behrens and Prof. Dr. Miriam Locher. Some of the contents in this paper have been presented at the conference *Researching and Applying Metaphor (RaAM)* 9 in Lancaster (UK), 4-7 July 2012 with the title *Swine flu scare: The metaphorical conceptualisation of a pandemic disease in media language*. I am grateful for feedback received from anonymous reviewers as well as feedback for my MA thesis and my paper presentation in Lancaster.

2 Epidemic diseases are characterised by an increase in infected people over a certain time and once they spread to the rest of the world, they can be classified as pandemic

flu³, soon became an important topic in the international press. The phrase *CATCH IT, BIN IT, KILL IT* (Department of Health (UK) 2009) became part of a national campaign against the spread of the pandemic 2009 in the UK. Since a virus cannot be a *killer*, nor is it an object you could simply *catch* and *bin*, and even less so is it possible for people to *kill* the virus, this suggests that the swine flu disease was metaphorically conceptualised in persuasive ways.

This study focuses on metaphorical conceptualisations in language when talking about pandemic diseases such as swine flu in 2009. First, I am interested in all the metaphors used in the domain of illness and disease. As a second step, the data will be addressed with regard to the variation of conceptual metaphors at two points in time, that is, during the outbreak and the decline of the disease. The aim is to test how variation in language is used to reach certain goals. At the beginning of the reporting on swine flu, the topic was very dominant; this did not remain during the whole period but quickly decreased culminating in the reporting suddenly stopping completely – even though there were still worldwide cases. On the one hand, this is due to non-linguistic, factual circumstances of a disease such as swine flu, in that the information on the emergence of a highly contagious virus is frightening per se; and this usually provokes media attention, no matter what language is used. But on the other hand, the question is whether the choice of language does indeed matter and if so, in what degree metaphoricity is used to enforce scare stories. It is believed that if metaphorical language were able to add to the scare effect, then metaphors would need to be even more frequently represented at the beginning of the outbreak than towards the end.

The decline of the reporting is interesting because it happened very quickly and while there were still many people infected and also dying from the disease⁴. The question is: How did the discourse of swine flu change towards the end of the pandemic in terms of conceptualisations? Can conceptual

diseases (Potter 2001: 572ff.). It was on 11 June 2009, that Dr Margaret Chan, Director-General of the World Health Organization, officially declared influenza pandemic alert phase 6, which is when a disease is called a pandemic and therefore needs worldwide measures (see WHO 2009: situation updates).

3 The World Health Organisation (WHO) published their first press release on swine flu on 24 April 2009, naming it “Influenza-like illness”, which at that time affected Mexico and the US only. In their following updates on swine flu, WHO named the disease “swine flu illness”, “swine influenza” and from 29 April 2009 onwards “Influenza A (H1N1)” until they finally changed the name to “Pandemic (H1N1) 2009” on 1 July 2009 (see WHO 2009: situation updates). However, in the media the disease was mostly referred to as swine flu.

metaphors be partly responsible for scare that usually starts with the outbreak of a disease and can it also give reasons for the disappearance of such a scare?

1.2 Theoretical Background

Following Conceptual Metaphor Theory (CMT, Lakoff/Johnson 1980), conceptual metaphor is understood as systematic mappings between two domains of experience, whereas the target domain (A) is typically abstract and the source domain (B) typically concrete (Lakoff 1993: 245; Semino 2008: 6). The metaphorical expressions, or linguistic metaphors, are linguistic realisations of these conceptual mappings. CMT states that metaphor is defined by indirect meaning since we understand something in terms of something else and metaphorically used words are believed to have a more basic meaning in their source domain, which is now indirectly used in the target domain (Steen 2007: 66f.). Even if there is no "inherent similarity" (Lakoff/Johnson 1980: 113) two domains of experience are compared to each other, which means that linguistic metaphor is based on "indirectness-by-similarity" (Steen 2009: 32).

For the analysis this means that the study is aimed at finding indirectly used language that creates similarity between a source domain and the target domain of pandemic disease.

1.3 The discourse of illness and disease

In their early work, Lakoff/Johnson (1980) have presented a few examples of metaphorical expressions from the domain of ILLNESS, which mainly included orientational UP/DOWN conceptualisations and personification metaphors. However, these were very few examples, which were not based on extensive studies and therefore, were not representative of the domain of ILLNESS. Lakoff and Johnson have often been criticised for being unsystematic with their choice of examples (e.g. Deignan 2005: 27). Since it is impossible to rely on one's own intuition about language, corpora and natural discourse should be used to give evidence of conceptual metaphors (e.g. Deignan 2005: 76; Semino 2008: 1). Therefore, this study is based on real language data.

4 According to WHO (2010), the swine flu virus can be compared to seasonal influenza viruses in terms of infection (transmitted from person to person) and symptoms. The difference is that pandemic H1N1 was a new virus and due to the lack of immunity, the death rate was relatively high.

In the meantime, there have been many studies in the field of illness (e.g. van Rijn-van Tongeren 1997; Fleischman 2001; Gwyn 2002; Semino 2008) and epidemic diseases such as foot and mouth disease (e.g. Stibbe 2001; Nerlich et al. 2002), SARS (e.g. Washer 2004; Wallis/Nerlich 2005; Chiang/Duann 2007), MRSA (e.g. Nerlich/Koteyko 2009) and avian flu (e.g. Nerlich/Halliday 2007; Koteyko et al. 2008, Martin de la Rosa 2008) that have enriched the theory, based on natural language.

One of the conceptual metaphors found in all the studies, sometimes called slightly differently, is the DISEASE IS WAR metaphor. Yet, Wallis/Nerlich (2005) point out that in the reporting of SARS in the UK, the WAR metaphor was not the most prominently used metaphor but was rather replaced by a more specialised metaphor SARS IS A KILLER. According to the authors, one possible explanation could be the lacking need for immediate action since the disease was no threat to the UK (Wallis/Nerlich 2005: 2637). In contrast, Chiang/Duann (2007: 587f.) identify SARS IS WAR as the most dominantly used metaphor in Taiwanese and Chinese newspapers. This illustrates the importance of considering the point of view of the researcher. The WAR metaphor has shown especially effective in the reporting of foot and mouth disease when the public in the UK had to be persuaded to take action such as culling healthy animals (Stibbe 2001; Nerlich et al. 2002).

There are other metaphors commonly used in the discourse of diseases such as the concept of DISASTER, found in the SARS discourse (Chiang/Duann 2007), the JOURNEY metaphor, discussed in studies of avian flu (Koteyko et al. 2008; Martin de la Rosa 2008) and the aspect of cleanliness as a weapon belonging to the WAR metaphor, as investigated in the study of MRSA (Nerlich/Koteyko 2009).

The results of these studies will be considered in the analysis in order to assure validity and significance of the conceptual metaphors identified. In addition to giving a general account of metaphors used when talking about illness and disease, the aim of this paper is to go beyond the descriptive level and analyse the development of metaphors over time. Swine flu appeared to be conceptualised differently in the early and the late period of the reporting. The impression is that at the beginning, the choice of metaphors helped to spread the scare story whereas towards the end of the reporting swine flu was more often referred to by literal terms. This will be investigated in the study by

analysing the reporting at the beginning of the outbreak and the decline of published articles towards the end. The results aim at giving answers to the question about the influence of conceptual metaphors in relation to media scare stories in the context of swine flu pandemic.

1.4 Methods

In the last few years, there have been many publications addressing the question of methodology in the analysis of metaphor, which reflects the interest in the topic and the need for a formalised procedure (e.g. Barcelona 2002; Charteris-Black 2004; Musolff 2004; Deignan 2005; Pragglejaz Group 2007; Steen 2007; Semino 2008; Steen et al. 2010;). The problem is twofold: First, a method is needed to identify the metaphorical expressions in a text, which can be called "linguistic analysis"; and second, the conceptual domains have to be identified and analysed for the linguistic metaphors, therefore called "conceptual analysis" (Steen 2007: 90f.).

My linguistic analysis is based on the Metaphor Identification Procedure (MIP) developed by the Pragglejaz Group (2007) and the revised and extended MIPVU⁵ (Steen et al. 2010). The MIP has been developed as a research tool for other scholars (Pragglejaz Group 2007: 36) and therefore, very detailed guidelines are given for each step of the analysis, as is presented in the following:

1. Read the entire text/discourse to establish a general understanding of the meaning.
2. Determine the lexical units in the text/discourse
3. (a) For each lexical unit in the text, establish its meaning in context, that is, how it applies to an entity, relation, or attribute in the situation evoked by the text (contextual meaning). Take into account what comes before and after the lexical unit.
(b) For each lexical unit, determine if it has a more basic contemporary meaning in other contexts than the one in the given context. For our purposes, basic meanings tend to be
 - More concrete [what they evoke is easier to imagine, see, hear, feel, smell, and taste];
 - Related to bodily action;

5 *MIP* stands for 'Metaphor Identification Procedure' and the added *VU* in the acronym is a reference to the Vrije Universiteit Amsterdam, the location where the research had been carried out (Steen et al. 2010).

- More precise (as opposed to vague);
- Historically older;

Basic meanings are not necessarily the most frequent meanings of the lexical unit.

- (c) If the lexical unit has a more basic current/contemporary meaning in other contexts than the given context, decide whether the contextual meaning contrasts with the basic meaning but can be understood in comparison with it.

4. If yes, mark the lexical unit as metaphorical.

(Pragglejaz Group 2007: 3)

The MIP asks for a 4-step-analysis of each lexical unit. Since the aim of this study is to identify metaphorical expressions from the target domain of disease (i.e. pandemic, illness, medicine, vaccine, etc.), the method has been slightly adapted. Instead of analysing every single lexical unit, only those relevant for the domain of disease were analysed. For the definitions of basic meanings the online version of the corpus-based contemporary *Macmillan English Dictionary (MM)* was used.

After having applied the MIP, the metaphorical expressions identified have to be analysed regarding conceptual mappings involved. Barcelona (2002: 247) has developed a methodological procedure, which was reformulated as a 5-step analysis for my conceptual analysis:

- 1) Study the results obtained at step 3 a) of the MIP and establish cross-domain mappings by using a formula of the kind TARGET DOMAIN (A) IS SOURCE DOMAIN (B).
- 2) Consult the relevant literature to back up with further evidence the domain mappings established at step 1.
- 3) Once step 1 and 2 have been followed for the whole corpus under investigation, arrange clusters of conceptual metaphors that belong to the same basic-level metaphors; that is, group the conceptual metaphors according to hierarchy.
- 4) Observe whether the conceptual metaphors identified have entailments and describe what these entailments are.
- 5) Look at the results in their context and interpret if and how the conceptual metaphors highlight or hide certain aspects.

The first step acknowledges the fact that the domain mappings are already identified when applying the MIP and only need to be reformulated as A IS B mappings, as proposed in CMT. At step 2), a link is set between the study and other studies in the same field. This is important, especially for conventional metaphors because it is advisable not to propose new A IS B formulas in each

study but rather take and, where needed, redefine the same conceptual metaphors in order to create a continuum. Deignan criticises the tendency of some researchers to “propose new conceptual metaphors using limited linguistic evidence” (2005: 105). This can be prevented by referring to the literature at step 2), or to ensure for enough instantiations of linguistic metaphors that justify the proposition of a new conceptual metaphor, which is part of step 3). At this step, all the results are grouped and put into hierarchical order. It is also studied whether there are more fundamental or basic conceptual metaphors that are higher in hierarchy and of which the conceptual metaphors are just one of many instantiations. At step 4), the domain mappings identified are studied for their entailments and at step 5), for their ideological impact in context. Only steps 1) and 2) deal with the conceptual metaphors as isolated instantiations; from 3) onwards, the domains identified are analysed more closely and interpreted on a more global level when they are set into relation to each other.

While the MIP method accounts for the identification of metaphorically used words, the conceptual analysis sets the basis for the overall interpretation of the conceptual metaphors. The combination of these two methods of the linguistic and conceptual analysis is believed to allow for a reliable and logical analysis.

1.5 Data

The analysis draws on 51 news texts taken from three subcorpora (A, B, C), which were selected from a corpus consisting of 267 news texts on swine flu, published between April 2009 and February 2010 in the six Sunday editions of British broadsheet and tabloid newspapers with highest circulation. The three Sunday broadsheets were *The Sunday Times (TST)*, *The Sunday Telegraph (TSTG)* and *The Observer (TO)*; the three Sunday tabloids were *The Mail on Sunday (TMOS)*, *Sunday Mirror (SM)* and *News of the World (NOTW)* (all the texts were accessed from *LexisNexis 2010*).

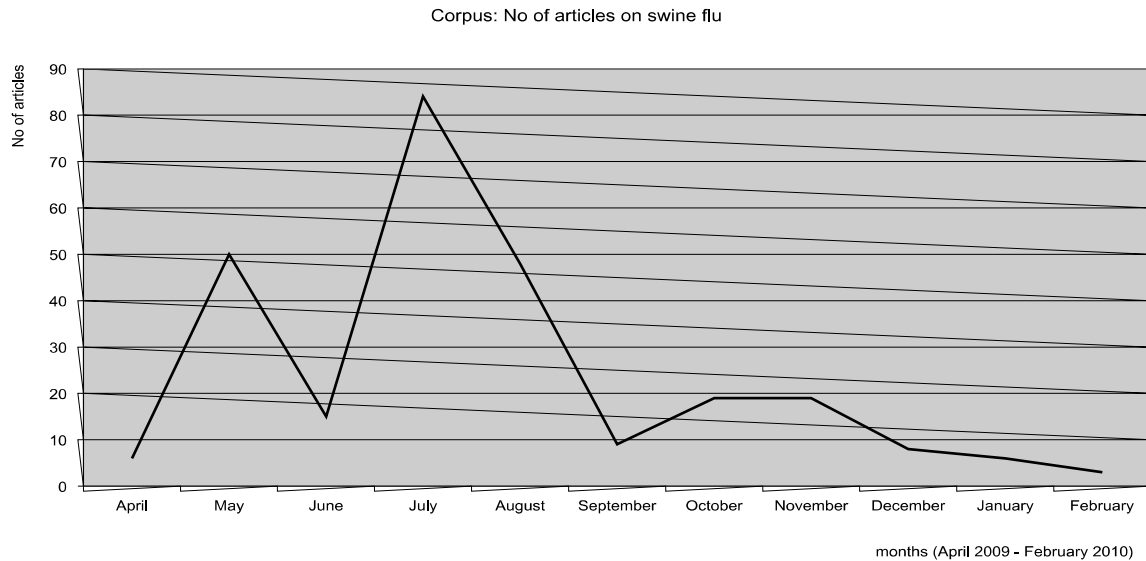


Figure 1 Corpus details: Number of articles per month (total of 267 articles)

Figure 1 shows when most of the articles were published. The first articles in the selected national Sunday newspapers were published on 26 April 2009. There was a visible increase of media interest in May 2009, when the level was not yet raised to that of a pandemic disease (see WHO 2009). The number of published articles peaked in July 2009, with a total of 84 articles across the six publication types. After an increase of articles in July 2009, there was a very clear decrease of published articles on swine flu in September 2009, which corresponds to the raise and decline of cases and swine flu-related deaths in Britain in those months (see Donaldson et al. 2009). However, even though the virus was highly active in October and November 2009 and the pandemic reached a second height, this was not reflected in the media and the number of articles only showed a slight increase. The topic seemed to have lost the media's interest after the first intensive period in summer 2009. An explanation for that could be the missing newsworthiness, because everyone was now familiar with the topic. In December 2009, January 2010 and February 2010 there was again a decline in publications on swine flu.

While the corpus helps to get an overview of the development of media interest, it contains too much language data to be handled in this linguistic and conceptual metaphor analysis. Therefore, only a selection of 51 news texts was subject to the analysis in this study.

To address the question of conceptualisations in the discourse of swine flu, a general subcorpus (A) was created with evenly distributed news texts from all

publication types. This subcorpus consists of 18 articles, published in April/May 2009, July 2009 and October/November 2009 and, with a total of 16,066 words, adds up to 10% of the whole corpus.

Another two subcorpora (B and C) were defined from the corpus presented above. First, all the articles from December 2009 to February 2010 were singled out for an analysis of the reporting during the decline of the disease. This amounted to 5.5% of the corpus and formed subcorpus C. Another subcorpus from the beginning of the outbreak was then size-matched with subcorpus C. This subcorpus B contains data from late April until the end of May 2009, which represents the early reporting during the first increase of publications. Subcorpora B and C will be compared with each other to find tendencies of shifting metaphorical conceptualisations during the outbreak and the decline of the disease.

2 Results and Discussion

2.1 Conceptual Metaphors in a general subcorpus

The analysis of the general subcorpus A results in a total of 222 metaphorical expressions in the domain of disease and medicine, deriving from six conventionally used conceptual metaphors. Table 1 lists the domain mappings and the number of linguistic realisations.

Table 1 Conceptual metaphors and number of metaphorical expressions in subcorpus A

CONCEPTUAL METAPHORS Hierarchically grouped into general and more specific domains	Number of linguistic instantiations of each conceptual metaphor			
	April / May 09	July 09	Oct / Nov 09	Total
DISEASE IS PHYSICAL AGGRESSION A VIRUS IS A KILLER / AN ATTACKER STOPPING A DISEASE IS FIGHTING (A WAR) DRUGS AND VACCINES ARE PROTECTORS GIVING MEDICATION IS PHYSICAL AGGRESSION THE IMMUNE SYSTEM IS A DEFENCE	31	7	53	91
	23	3	4	
	4	4	16	
	4	-	21	
	-	-	11	
	-	-	1	
PEOPLE ARE CONTAINERS AFFECTING MANY PEOPLE WITH A DISEASE IS COVERING A CONTAINER / SURFACE AFFECTING MANY PEOPLE IS CLEANING A SURFACE AFFECTING MANY PEOPLE IS HOLDING THEM THE IMMUNE SYSTEM IS A CONTAINER	25	8	9	42
	22	3	6	
	1	3	-	
	2	2	1	
	-	-	2	
DISEASE IS AN OBJECT DISEASE IS AN OBJECT / A POSSESSION STOPPING THE VIRUS IS PUTTING IT INTO A CONTAINER	18	4	10	32
	17	4	5	
	1	-	5	
A VIRUS IS A LIVING ORGANISM (HUMAN BEING / ANIMAL / PLANT)	16	6	7	29
HEALTH IS UP / ILLNESS IS DOWN	9	-	4	13
DISEASE IS A (NATURAL) DISASTER	-	4	3	7
OTHER (various less conventional domain mappings)	1	4	3	8
Total of metaphorical expressions in the domains identified:	100	33	89	222

In this paper, only the most frequently used metaphors will be discussed in more detail⁶.

2.1.1 DISEASE IS PHYSICAL AGGRESSION

As illustrated in Table 1, the conceptual mapping DISEASE IS PHYSICAL AGGRESSION is the most dominantly used mapping in subcorpus A. This domain mapping is the general conceptual metaphor for a number of more specific conceptual metaphors. It has been repeatedly suggested that PHYSICAL AGGRESSION should be used instead of WAR, a domain often discussed in the literature (e.g. Charteris-Black 2004: 69ff.; Semino 2008: 210). The conceptual metaphors and metaphorical expressions in Table 2 demonstrate nicely why the WAR domain is too narrow as a category.

6 For further analyses see Mundwiler (2010).

Table 2 DISEASE IS PHYSICAL AGGRESSION and its corresponding metaphorical expressions

<i>Conceptual metaphor</i>	<i>Metaphorical expressions</i>
DISEASE IS PHYSICAL AGGRESSION A VIRUS IS A KILLER / AN ATTACKER	<i>killer (6x), to kill (5x), victim (11x), to launch (1x), to claim (2x), to strike (1x), to attack (1x), attack (2x), to hit (1x)</i>
STOPPING A DISEASE IS FIGHTING (A WAR)	<i>fight (1x), to fight (1x), to lose (1x), battle (1x), offensive (1x), campaign (3x), to marshal (1x), lieutenant (1x), conquest (1x), foe (1x), to defeat (1x), to kill (1x), challenge (3x), mercy (1x), to protect (2x), protective (1x), aggressively (1x), front (1x), vulnerable (1x)</i>
DRUGS AND VACCINES ARE PROTECTORS	<i>to combat (3x), fight (1x), to protect (3x), protection (5x), defence (1x), target (1x), to target (1x), strangle (1x), resistant (3x), resistance (1x), to kill (1x), strong (1x), weak (1x), robust (1x), to cover (1x)</i>
GIVING MEDICATION IS PHYSICAL AGGRESSION THE IMMUNE SYSTEM IS A DEFENCE	<i>jab (7x), shot (4x) defence (1x)</i>

All the words identified have to do with physical aggression, be it related to fighting in a war, involvement in a struggle or simply hitting. The domain of WAR is therefore just one part of a broader domain. It could be argued that WAR accounts for a separate conceptual metaphor. However, words such as *to fight* or *to lose* would pose quite some difficulty on the part of the analyst when it comes to the decision on how to categorise them. The most basic senses do not solely draw on the WAR domain but rather on the experience of personal physical struggles. Therefore, WAR as well as KILLER and other STRUGGLE metaphors were grouped under the same conceptual metaphor, namely DISEASE IS PHYSICAL AGGRESSION.

For example, the verb *to kill* appears in several conceptual metaphors belonging to DISEASE IS PHYSICAL AGGRESSION, but could not be categorised as belonging to the WAR domain in all cases. Examples (1) to (3) show how the focus is slightly different in each of these cases.

- (1) Additionally, at least eight students at a New York high school were last night believed to have a form of human swine flu, but authorities are not certain if it is the same strain that has *killed* people in Mexico. (TO 26/04/2009)

- (2) There was one big potential problem: neuraminidase exists not only in the flu virus but also in human cells which function normally; any drug had to be sufficiently strong to *kill* flu, but sufficiently weak to leave human neuraminidase unaffected. (TO 25/10/2009)
- (3) The print advertisement and hand-delivered leaflets advising us to use more tissues and then throw them away had a slightly patronising air and an unfortunate tagline - "Catch it! Bin It! *Kill* It!" - which half-suggested we were being advised to catch swine flu. (TO 25/10/2009)

Example (1) has been categorised as an instantiation of the conceptual metaphor A VIRUS IS A KILLER, which significantly differs from the WAR domain in that it involves one single criminal as opposed to a military army (Wallis/Nerlich 2005: 2634). Of course, there are overlaps, too. Wallis/Nerlich (2005: 2634), in their study on SARS, argued that both concepts make use of the FORCE metaphor and consequently exploit similar vocabulary. The context needs to be closely examined in order to see where the focus lies and whether this implies a WAR or a KILLER conceptualisation.

Example (2) takes a different focus while the drug is personified and tries to kill the virus, this being a metaphorical expression of the conceptual metaphor DRUGS AND VACCINES ARE PROTECTORS. Again, the conceptualisation of medication as a protector or even killer in this case does not primarily draw on the WAR domain. And finally, example (3) comments on the governmental campaign against the spread of swine flu with the slogan "Catch it! Bin It! Kill It!", which suggests that the people addressed in this campaign have to fight against the virus by following certain rules. This could be seen as part of the WAR domain since it is implied that everyone has to fight the same fight, as some sort of an army in a war. The conceptual metaphor identified is STOPPING A DISEASE IS FIGHTING (A WAR), and WAR is put in brackets because it is still not the only domain it alludes to.

When we analyse the entailments of the metaphors more closely, we find a consistent schema along the following lines: An attacker or killer attacks people who then take measures to defend themselves. This can either be achieved by attacking back or through the use of defences such as their body (the immune system) or drugs and vaccines to protect them. Since these vaccines are part of the weapons, they involve physical aggression towards the ones to be protected when given *jabs* and *shots*. The physical aggression is

therefore present on all the fronts: The virus as a killer attacks, the people who become infected fight back, their body protects them and the vaccines first appear to be physical harm to the patients but once taken they can fight back the virus. Thinking about the aspect of highlighting and hiding of metaphors (Lakoff/Johnson 1980: 10), the PHYSICAL AGGRESSION metaphors clearly emphasise the need of action on the part of the potential patients. The attacking virus is presented as a threat to the nation and therefore needs to be stopped by any means; or in other words:

The power of the military metaphor lies in its ability to arouse people into a state of fear and preventive activity, to mobilise against an emergency. (Gwyn 2002: 110)

Using such strong metaphors in a situation such as a pandemic can therefore be very helpful and persuasive. The slogan "Catch it! Bin it! Kill it!" quoted in (3) clearly draws on the PHYSICAL AGGRESSION domain. This phrase suggests that everyone can help to stop the attacker by killing it, which, of course, literally means that everyone should wash their hands regularly. It implies that everyone is partly responsible. This again played a role when mass vaccination programmes were communicated to the public in November 2009. As can be seen in Table 1, the PHYSICAL AGGRESSION metaphors are heavily exploited in October and November 2009, which can now easily be explained: As discussed above, these metaphors were needed to mobilise the masses to go take vaccination. Again, these metaphors stress the aspect of responsibility and implicitly culpability in the case of failure.

2.1.2 PEOPLE ARE CONTAINERS

In the scientific literature on CMT, the CONTAINER metaphor has been introduced as one of the most basic conceptualisations because it makes use of the concept of the human body:

Each of us is a container, with a bounding surface and an in-out orientation. We project our own in-out orientation onto other physical objects that are bounded by surfaces. (Lakoff/Johnson 1980: 29)

As a consequence of this basic experience of being bounded by a surface, the conceptual metaphor PEOPLE ARE CONTAINERS can be seen as a general

formulation of the CONTAINER mapping⁷. Table 3 shows the domain mappings that can be understood as CONTAINER metaphors.

Table 3 PEOPLE ARE CONTAINERS and its corresponding metaphorical expressions

<i>Conceptual metaphor</i>	<i>Metaphorical expressions</i>
PEOPLE ARE CONTAINERS	
AFFECTING MANY PEOPLE WITH A DISEASE IS COVERING A CONTAINER / SURFACE	<i>to spread (20x), spread (9x), widespread (2x)</i>
AFFECTING MANY PEOPLE IS HOLDING THEM	<i>to take hold (2x), grip (1x), to reach (2x)</i>
AFFECTING MANY PEOPLE IS CLEANING A SURFACE	<i>to sweep (3x), wipeout (1x)</i>
THE IMMUNE SYSTEM IS A CONTAINER	<i>to overload (2x)</i>

Metaphorical expressions like *to spread* are analysed as instantiations of the metaphor PEOPLE ARE CONTAINERS, which is backed up by findings of another study: Wallis/Nerlich (2005: 2636) explain that in other illness discourses the CONTAINER mapping usually affected individual people, whereas in their study on SARS, it appeared to be extended over a larger physical space such as cities, regions and countries. This was also observed in the analysis of the swine flu discourse and especially significant in the use of the words *to spread, spread* and *widespread*. The basic meaning identified for *to spread* is, according to Macmillan dictionary, “to open something that is folded so that it covers a surface” (MM). On the basis of that, the conceptual metaphor AFFECTING MANY PEOPLE WITH A DISEASE IS COVERING A CONTAINER/A SURFACE has been identified to describe the mapping of the metaphorically used words *to spread, spread* and *widespread* in the context of illness, as in example (4):

- (4) A BRITISH Airways crewman was in hospital last night with symptoms of the killer swine flu virus feared to be *spreading* around the world. (SM 26/04/2009)

In this case, there are not only individuals covered by the disease but masses of people that make up cities, regions, countries or even the whole world. Since the larger the area the more abstract it becomes, the CONTAINER metaphor helps to address it in a more concrete way. At the same time it is very generalising and neglects the effect it has on the individuals. By highlighting the virus as affecting masses of people and not just individuals,

⁷In the context of illness, Fleischman (2001: 490) introduces the specific metaphor ILLNESS SUFFERERS ARE CONTAINERS, which can, however, be seen as a submapping of the general metaphor PEOPLE ARE CONTAINERS. Since the conceptual analysis is aimed at finding basic-level metaphors (see section 1.4 on methods), the more general category is used here.

the CONTAINER metaphor implies that the disease can affect anyone and therefore, again, immediate action is needed.

The CLEANING metaphor has also been categorised as a submapping of the CONTAINER metaphor and its complex implications are demonstrated using the following examples:

- (5) A flu epidemic *sweeps* the UK (TMOS 26/07/2009)
- (6) 5,000 MAY DIE; HSE chiefs fear *wipeout* from swine flu virus (NOTW 26/07/2009)

Example (5) gives a typical context for the expression *to sweep* in the sense of an epidemic that spreads quickly. The mapping is similar to the one of *to spread* except that here the CONTAINERS are covered with water. In example (6), again, cleaning is seen as infecting or even killing people. In the literature, the expression *wipeout* and *to wipe out* have often been addressed differently and categorised as an instantiation of the WAR domain (e.g. Lakoff/Johnson 1980: 4). Steen (2007: 140) and Williams Camus (2009: 479f.) argue that *to wipe out* draws on both domains because in the war discourse, *to wipe out* is euphemistically used for *to kill* which consequently leads to the confusion of the two domains. In the discourse of disease, both domains are used, which is why it does not lead to any inconsistency. The entailments of this complex mapping are as follows. The expression *to wipe out* means *to get rid of dirt*, which implies that a disease is dirty and that people with a disease are consequently dirty, too. Therefore, *to wipe out* in the context where *a disease wipes out a nation*, for example, this means *to get rid of a whole nation*, which, in other words, can also be used as *to kill a nation*. This shows that the link of the domains DISEASE, CLEANING and WAR is not arbitrary at all but rather shows systematic correspondences.

2.1.3 DISEASE IS AN OBJECT

Since a virus is an abstract entity, there appears to be a tendency to describe it as something else, be it a killer, a person, an animal, a plant or an object. All these conceptualisations have one thing in common; namely that the source domain is more concrete than the target domain. This makes the abstract virus more easily understandable. Table 4 illustrates what metaphorical expressions of the conceptual mapping DISEASE IS AN OBJECT are used in the context of swine flu.

Table 4 DISEASE IS AN OBJECT and its corresponding metaphorical expressions

<i>Conceptual metaphor</i>	<i>Metaphorical expressions</i>
DISEASE IS AN OBJECT	
DISEASE IS AN OBJECT / A POSSESSION	<i>to catch (6x), to get (4x), to pick (2x), to pass (5x), to carry (1x), to have / to have got (7x), to circulate (1x)</i>
STOPPING THE VIRUS IS PUTTING IT INTO A CONTAINER	<i>to bin (2x), containment (2x), to contain (2x)</i>

The metaphor DISEASE IS AN OBJECT/A POSSESSION entails those expressions that show how potential illness sufferers can *catch flu*, or *get ill*, *pass* the disease on to others or simply *have* a disease. Some of these expressions conceptualise the potential illness sufferer as an active person who can influence whether he *picks up* a disease or whether he does not want *to catch* it, as is exemplified in (7).

(7) She *picked up* the illness on a recent trip to Mexico. (NOTW 03/05/2009)

It almost seems as if there was a choice and, as a consequence, it was somebody's own fault if she or he got infected. It has been argued that DISEASE IS A POSSESSION suggests some sort of culpability on the part of the victim (Wallis/Nerlich 2005: 2635), which, however, is not always the case. For example, *to catch the flu* certainly implies an active person who is responsible for his infection, but if someone *gets ill*, the patient is a passive recipient of the disease. Also in the case of expressions like *the disease strikes us*, the patient is seen as an innocent, passive victim who has no control over the disease (Fleischman 1999: 10). The assumption of an active person needs to be treated carefully and can easily be changed – depending on the verb – to a blaming the victim strategy.

In example (8) it is shown very clearly how the POSSESSION metaphor implies that *having the virus* makes someone a threat to others. This relates to Wallis/Nerlich (2005: 2635) who introduced the metaphor DISEASE IS A POSSESSION in their study on SARS, in which they claimed that this metaphor was used to point to the existence of danger, therefore stigmatising the illness sufferers. And since swine flu was highly contagious, people with flu were very likely to be seen as carriers of danger. This is also why, at the beginning of

the outbreak, people were put under quarantine, which must be seen in the context of *containment*, as in example (9).

- (8) "The worst thing is that you don't know who *has* this virus. Maybe your neighbour *has got* it. Maybe the guy in the corner shop or the restaurant *has* it," said Gisela Hernandez, a 34-year-old housewife. (TSTG 26/04/2009)
- (9) "We always knew that we could not *contain* or prevent the *spread* indefinitely," Nicholson wrote, "and that is why today ministers across the UK have agreed that it is time to move from *containment* into the treatment phase." (TO 25/10/2009)

Example (9) shows how *containing* the objectified virus was the main strategy to prevent the spread at the beginning of the outbreak. It was categorised as an instantiation of the metaphor STOPPING THE VIRUS IS PUTTING IT INTO A CONTAINER.

"*CATCH IT, BIN IT, KILL IT*", the government's slogan referred to earlier (see Department of Health (UK) 2009 and news texts), makes use of the metaphor DISEASE IS AN OBJECT in quite an innovative way. While *to catch the flu* is a conventional way of saying to *become infected with flu*, this is not exactly what is meant in the context of the slogan. There it is suggested that tissues should be used to catch the virus when sneezing. Therefore, *to catch* draws on its literal sense, but since you cannot catch a virus literally without making sense of the virus as an object, it is nonetheless metaphorically used. And it certainly plays with the implications of both, the literal and the metaphorical meaning. *Bin it* in the second part of the slogan is an instantiation of STOPPING THE VIRUS IS PUTTING IT INTO A CONTAINER. It is implied here that the virus is an object which can simply be put into a container to control it. The last part, *kill it*, suggests that the act of stopping the disease involves physical aggression and therefore being an instantiation of STOPPING A DISEASE IS FIGHTING (A WAR). But in the context, it literally refers to the suggestion that everybody should wash his or her hands regularly. This is a very interesting link because, as has been claimed above in the discussion of examples (5) and (6) (see 2.1.2), the CLEANING metaphor plays an important role in the WAR domain and *to wipe out*, for example, takes on a conventional indirect meaning of *to kill* in the WAR domain (Steen 2007: 140). This means that the slogan exploits the various implications of linking the CLEANING and the WAR domain. The pronoun *it* in all three phrases refers to the virus or, more

generally, to swine flu. This example shows how a number of metaphors can persuasively be combined in one sentence although they draw on different source domains. Since the slogan was advertised nationwide, it was also discussed in the media and is therefore part of the corpus, as seen in example (3) (see 2.1.2).

2.2 Conceptual metaphors in the news during the spread and decline of the pandemic

During the outbreak of swine flu, this topic newly appeared in the media and was therefore treated differently than towards the end, when swine flu seemed to disappear. Because of the persuasive aspect of metaphors, the hypothesis is that there must be significantly more metaphorical expressions in the early phase of the disease as opposed to the end, when there was no longer much interest in the topic.

2.2.1 Metaphors during the outbreak of the disease

The analysis of subcorpus B presented in Table 5 results in a total of 111 metaphorical expressions from six different source domains, all being the same as the six most prominent metaphors in subcorpus A. Since these six conceptual metaphors identified are represented in subcorpus A and B, they can be interpreted as conventional metaphors in the swine flu discourse.

Table 5 Conceptual metaphors and number of metaphorical expressions in subcorpus B

CONCEPTUAL METAPHORS Hierarchically grouped into general and more specific domains	Number of linguistic instantiations of each conceptual metaphor
	April - May 2009
DISEASE IS PHYSICAL AGGRESSION A VIRUS IS A KILLER / AN ATTACKER STOPPING A DISEASE IS FIGHTING (A WAR) DRUGS AND VACCINES ARE PROTECTORS GIVING MEDICATION IS PHYSICAL AGGRESSION THE IMMUNE SYSTEM IS A DEFENCE	49 24 12 10 1 2
PEOPLE ARE CONTAINERS AFFECTING MANY PEOPLE WITH A DISEASE IS COVERING A CONTAINER / A SURFACE AFFECTING MANY PEOPLE IS CLEANING A SURFACE AFFECTING MANY PEOPLE IS HOLDING THEM	10 7 2 1
DISEASE IS AN OBJECT / A POSSESSION	22
A VIRUS IS A LIVING ORGANISM (HUMAN BEING / ANIMAL / PLANT)	19
HEALTH IS UP / ILLNESS IS DOWN	5
DISEASE IS A (NATURAL) DISASTER	6
Total of metaphorical expressions in the domains identified:	111

While there are the same conceptual metaphors at play, they are not all equally important. DISEASE IS PHYSICAL AGGRESSION is the most dominantly used metaphor in both subcorpora. But then, DISEASE IS AN OBJECT/A POSSESSION and A VIRUS IS A LIVING ORGANISM (HUMAN BEING/ANIMAL/PLANT) are used considerably more often than PEOPLE ARE CONTAINERS, which is the second most frequently used metaphor in subcorpus A. As in subcorpus A, the submapping A VIRUS IS A KILLER/AN ATTACKER is the most important conceptual metaphor, with a total of 24 metaphorical expressions. In subcorpus A, it was also significantly more often used in the first phase (April/May 2009), with 23 metaphorical expressions, as opposed to only 7 metaphorical expressions in the second and third phase under investigation (July and October/November 2009). This result emphasises the fact that swine flu was strongly conceptualised as a killer or an attacker at the beginning of the outbreak when the disease was still unknown.

As for the conceptual metaphor PEOPLE ARE CONTAINERS metaphors, there are some differences between the results from subcorpus A and B. The submapping AFFECTING MANY PEOPLE WITH A DISEASE IS COVERING A CONTAINER/A SURFACE is very dominantly used in subcorpus A with 31 mentions of which 22 appear at the beginning of the disease. The metaphorical expressions belonging to that mapping are *to spread*, *spread* and *widespread*.

In subcorpus B, however, there are only 7 instances of that mapping, which suggests that there is considerable variation among different articles. The other two mappings, AFFECTING MANY PEOPLE IS CLEANING A SURFACE and AFFECTING MANY PEOPLE IS HOLDING THEM, are not much represented in subcorpus B and there are no instantiations of THE IMMUNE SYSTEM IS A CONTAINER. All in all, the CONTAINER metaphor is not extensively used in the early phase of the outbreak of swine flu.

With 22 instantiations, the POSSESSION metaphor is widely represented in subcorpus B but does not show any different metaphorical expressions compared with the ones discussed in regard to subcorpus A.

2.2.2 Metaphors during the decline of the disease

The analysis of subcorpus C results in 62 metaphorical expressions, drawing on six source domains to be analysed (see table 6). Again, the six conceptual metaphors are identical with the ones identified in subcorpus B and, as has been argued in that context, can be taken as conventionally used metaphors in the target domain of swine flu.

Table 6 Conceptual metaphors and number of metaphorical expressions in subcorpus C

CONCEPTUAL METAPHORS Hierarchically grouped into general and more specific domains	Number of linguistic instantiations of each conceptual metaphor
	Dec 2009 - Feb 2010
DISEASE IS PHYSICAL AGGRESSION A VIRUS IS A KILLER / AN ATTACKER STOPPING A DISEASE IS FIGHTING (A WAR) DRUGS AND VACCINES ARE PROTECTORS GIVING MEDICATION IS PHYSICAL AGGRESSION THE IMMUNE SYSTEM IS A DEFENCE	38 7 12 1 16 2
PEOPLE ARE CONTAINERS AFFECTING MANY PEOPLE WITH A DISEASE IS COVERING A CONTAINER / SURFACE AFFECTING MANY PEOPLE IS CLEANING A SURFACE	5 3 2
DISEASE IS AN OBJECT / A POSSESSION	3
A VIRUS IS A LIVING ORGANISM (HUMAN BEING / ANIMAL / PLANT)	5
HEALTH IS UP / ILLNESS IS DOWN	1
DISEASE IS A (NATURAL) DISASTER	10
Total of metaphorical expressions in the domains identified:	62

Compared with subcorpus B, which accounts for 111 metaphorical expressions, there is a significant decrease of the number of metaphorical instantiations. As in subcorpora A and B, subcorpus C has also the most instances in the domain of PHYSICAL AGGRESSION. However, there are some changes with regard to the most dominant submapping, which, in subcorpora A and B is the KILLER metaphor, whereas in subcorpus C it is the conceptualisation of MEDICATION as PHYSICAL AGGRESSION with 16 out of 38 expressions. This reinforces the argument that the KILLER metaphor is important for the conceptualisation of the unknown threat at the beginning of a disease, whereas the discourse of medication only started in autumn when mass vaccination programmes were introduced by the government.

The second most dominant metaphor is the DISASTER metaphor, which accounts for fewer instantiations in the early phase of the disease. This is surprising because it is believed to be a metaphor with strong implications, similar to the PHYSICAL AGGRESSION one, namely that situations of disasters usually mobilise and call for action. For that reason, DISASTER metaphors would have been expected to appear more often in the early phase instead of the late phase of a disease. However, the DISASTER metaphor is mainly represented by the metaphorically used expression *wave*, which is a very conventional term used to describe “a sudden increase in a particular type of behaviour or activity, especially one that is unpleasant or not welcome” (MM). As such, *wave* has a conventionally used metaphorical meaning that also finds use in target domains other than DISEASE. This means that its implications are not very strong because it does not apply to the DISEASE domain only. The conceptual metaphor PEOPLE ARE CONTAINERS does not have any new metaphorical expressions and the same goes for DISEASE IS AN OBJECT/A POSSESSION and HEALTH IS UP/ILLNESS IS DOWN.

2.2.3 Early versus late reporting

The fact that the analysis of subcorpora B and C results in the same six conceptual metaphors as the analysis of subcorpus A suggests that even when including more data, there is not significantly different material that would lead to completely different results. There are, however, substantial differences in the quantitative use of metaphorical expressions during the outbreak and the decline of the disease: In the early reporting there are 111 metaphorical

expressions identified as opposed to only 62 metaphorically used words in the late reporting. In general, the more frequent use of metaphors at the beginning of the disease can be interpreted as the need for compensating the unknown threat imposed by the swine flu virus. The abstract and unknown disease is understood in terms of something else, or rather several other things, as is suggested by the analysis. In the late phase, however, not much compensation is needed since all the parties involved are well-known by then: The virus has been researched and is therefore better known than before and there are vaccines that have been developed by pharmaceutical companies. The government who advises everyone to get vaccinated is repeatedly criticised for mismanagement but mostly in rather literal terms; the ones criticised are known and therefore concrete and not abstract. So it seems that in the late phase of the reporting not much metaphorical language was needed because either the scenery has metaphorically been set or facts, by then well-known, could be described in literal language.

At first sight, the results from the PHYSICAL AGGRESSION metaphor are surprising, because in the late phase there are still 38 instantiations as opposed to 49 during the outbreak of the disease. This shows how conventionally used that metaphor actually is. But the difference was expected to be more significant because of the metaphor's persuasive implications, which were expected to appear a lot more frequently at the beginning of the disease. However, there are changes regarding the use of subdomain mappings. During the outbreak of the swine flu disease, A VIRUS IS A KILLER/AN ATTACKER has 24 instantiations, but only 7 during the decline of the disease. This reinforces what has been suggested earlier, namely that the KILLER concept is most effective at the beginning of an unknown threat because it combines several conceptualisations: Since the virus is abstract, the personification as a KILLER helps to understand the concept⁸. Furthermore, it is persuasive in that a killer poses an immediate threat and therefore, such a conceptualisation makes

8 Personification metaphors are widely applied since they are based in our own experience of being a person (Lakoff/Johnson 1980: 25). The virus appears to be personified in different domains as, for example, in the AGGRESSION domain where it is personified as a KILLER. There are also more general personifications, drawn from the conceptual metaphor A VIRUS IS A LIVING ORGANISM (HUMAN BEING/ANIMAL/PLANT). This conceptual metaphor is represented by 19 instantiation in subcorpus B and only 5 expressions in subcorpus C and comparing these results with the KILLER metaphor, the observation is confirmed that personification was especially prominent during the early phase when not much was known about the virus yet.

people react to it according to governmental suggestions. The metaphor STOPPING A DISEASE IS FIGHTING (A WAR) is used 12 times both at the beginning and towards the end of the swine flu reporting and suggests that *fighting a disease* has become a very conventional metaphor with fewer implications. As such, it is used equally at different stages of a disease with no intentions on the part of the language user. The conceptualisation of GIVING MEDICATION as PHYSICAL AGGRESSION has 16 instantiations in the late phase of the reporting as opposed to only 1 expression at the beginning. This is no surprise because the discourse of vaccination, etc. only started later in the reporting. Therefore, the difference of the PHYSICAL AGGRESSION metaphor first does not seem to be significant, but the consideration of the submappings shows how the KILLER metaphor is mainly used at the beginning while medication-related metaphors appear later in the reporting.

The metaphor PEOPLE ARE CONTAINERS is used 10 times in subcorpus B and only 5 times in subcorpus C and therefore shows how the metaphorical use of *spreading* is more important at the beginning of the outbreak. Conceptualising the threat of the contagious disease as a virus covering people and cities helps to understand the unknown disease.

There is a predominant use of the POSSESSION metaphor at the beginning of the disease with 22 instantiations during the early phase and only 3 instantiations in the late reporting. This shows how the focus on the individual patient during the outbreak shifts to a more general focus on a whole nation. That goes in line with the metaphor HEALTH IS UP/ILLNESS IS DOWN, which is more frequently used at the beginning because it also shows a focus on the individual patient. This focus on individuals can be understood as potentially sensationalist because pointing to those who are ill at the same time highlight those who supposedly are a threat to others.

The comparison between the use of metaphors during the early and the late reporting shows that the metaphorical system is exploited in such a way that people can be persuaded of the risk of contagion in the early phase of an epidemic by the amount and choice of metaphorically used language in the news reporting. However, there is a certain stock of metaphor present during the whole period of the reporting, which suggests that metaphors are a basic ingredient of our conceptual system and that some of them are conventionally used in the discourse of a disease such as the swine flu pandemic.

3 Conclusion

The analysis has resulted in six conventionally used domain mappings and has demonstrated that conceptual metaphors are used throughout all reporting of swine flu and in all publication types, which supports the theory that the language used to report about epidemics is metaphorically structured. However, there are significant differences as to how many and which instances are found at the beginning and towards the end of the reporting. Considerably more metaphorical expressions were identified during the outbreak of the disease. In the two size-matched subcorpora, B and C, there were 111 metaphorically used words in the former, which represents the early reporting, and only 62 metaphorically used words in the latter, which represents the late reporting on swine flu. The quantitative difference in metaphorical language has been explained by the need to conceptualise an abstract, unknown disease, which was the case during the early period of reporting. During the outbreak, the KILLER metaphor was very dominantly used with 24 instantiations whereas it only had 7 instantiations during the decline. It has been argued that, at the beginning of the disease, the unknown threat was preferably personified as a killer because of its explanatory and persuasive implications. Later in subcorpus C, there was no further need to conceptualise the virus as something else because it was mostly researched and known by then. There were still quite a few instantiations from the DISEASE IS PHYSICAL AGGRESSION metaphor in the late phase, but those were mostly medication-related.

The analysis of the news coverage on swine flu shows how a pandemic disease is metaphorically framed. By using a deliberate choice of words, panic and fear were described and implied in the articles, while contrarily to these metaphorically structured narratives, swine flu did not appear to be such a big deal in real life. It is believed that metaphors can contribute to scare stories and, as suggested earlier, especially the use of metaphors from the PHYSICAL AGGRESSION domain can provoke a willingness of the public to take action, such as following hygiene instructions or getting medication and vaccines.

However, linguistic aspects such as metaphorical language cannot be taken as the only means that influence the public. Additional, non-linguistic features, such as scare statistics, comparisons to past diseases and a deliberate choice of images could be studied to complete the analysis of a media event. This paper approaches the topic from a purely linguistic and conceptual perspective to

test the importance of metaphors in the context of a public issue such as swine flu.

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