Animals vs. Armies: Resistance to Extreme Metaphors in Anti-Immigration Discourse

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Within the emerging paradigm of experimental Critical Discourse Analysis, this paper investigates the framing effects of dehumanising vs militarising metaphors in anti-immigration discourses. These metaphors are characterised as ‘extreme metaphors’ in so far as they are manifestly metaphorical and obviously inflammatory. Attested examples of these metaphors in political and media discourses are identified and critically analysed before their potential framing effects are investigated experimentally.

Contrary to predictions, alternative metaphors did not increase support for actions and evaluations consistent with the unique framings that they present. In fact, extreme metaphors decreased support for anti-immigration sentiments and hostile immigration policies compared to literal framings. It seems that extreme metaphors alert readers to the metaphorical framing being presented so that, among certain groups of people, the framing is more readily scrutinised and rejected, prompting readers adopt more sympathetic attitudes toward immigration. The implications of these findings for Critical Discourse Analysis are discussed.

Keywords: metaphor, extreme metaphor, metaphor resistance, immigration discourse, experimental methods

1. Introduction/Background

In the United Kingdom, immigrants are routinely denigrated in the national press as part of long-standing campaigns for more restrictive immigration policies (Ethical Journalism Network 2015). Politicians, especially those on the right of the political spectrum, are also quick to highlight the risks rather than the benefits of immigration. Amidst this discursive context, public attitudes toward immigration are generally negative. For example, according to a recent poll, 63% of the UK population believe that immigration levels have been too high while 71% of people support punitive measures associated with the “hostile environment” policy (YouGov 2018).

Among a range of linguistic and other semiotic features characteristic of anti-immigration discourses, the use of metaphor, in the language of both politicians and the press, is particularly striking. Most famously, for example, in a television interview for World in Action in 1978, Margret Thatcher is recorded as saying “people are really rather afraid that this country might be rather swamped by people with a different culture”. This particular metaphor, which conjures images of dirty, diseased waters or exotic habitats as well as excessive quantities, recurs in British political discourses relating to immigration. In 2002, the then Home Secretary David Blunkett described local schools as being “swamped” by non-English speaking immigrants. And more recently in 2014, in an interview with Sky News, the then Defence Secretary Michael Fallon described towns and communities as “being swamped by huge numbers of migrants”. In an example of so-called mixed metaphor, in the same interview Fallon also described British towns as feeling “under siege [from] large numbers of migrant workers and people claiming benefits”. This militarising metaphor is also taken up by other politicians.
Speaking to the BBC in 2015, for example, then Foreign Secretary Philip Hammond described “marauding” African migrants as a threat to European standards of living and social infrastructure. In the United States, Donald Trump has frequently described immigration as an “invasion”. An analysis by USA Today showed that, across 64 campaign rallies held 2017-2019, he referred to immigration as an invasion on 19 occasions. Such metaphors enact images of an aggressive incursion by a foreign enemy force.

Other metaphors liken immigrants to animals and/or infectious diseases. For example, in a 2015 interview with ITV News, David Cameron compared immigrants to insects when he described “a swarm of people coming across the Mediterranean”. In a highly inflammatory editorial published by The Sun in 2015, Katie Hopkins wrote that “Some of our towns are festering sores, plagued by swarms of migrants and asylum seekers, shelling out benefits like Monopoly money! Make no mistake, these migrants are like cockroaches”. Similarly, in the United States, Donald Trump said of migrants entering the country: “these aren’t people. These are animals”. And in a subsequent tweet, the President claimed that Democrats “want illegal immigrants, no matter how bad they may be, to pour into and infest our country”. These dehumanising metaphors have a disturbing intertextual history in so far as they carry echoes of Nazi language. For example, a principle concept in the Nazi ideology was that of untermenschen (subhumans). In 1939, after visiting Jews in the Lodz ghetto, Joseph Goebbels wrote “Jews are not people; they are animals”. In the Nazi propaganda film The Eternal Jew (1940), Jewish people were likened to rats when the narrator said “just as rats are the vermin of the animal kingdom, Jews are the vermin of the human race and similarly spread disease and corruption”. Specific comparisons with rats can also be found in contemporary anti-immigration discourses articulated in the visual modality. The Daily Mail, for example, published the cartoon in Figure 1, where the purported open borders of the European Union are caricatured as allowing undesirable migrants, represented metaphorically as rats, to enter the Euro Zone unchecked. As with the linguistic examples, the cartoon makes worrying intertextual references to Nazi discourse, echoing cartoons like the one in Figure 2 which, published in 1939 in a Viennese newspaper Das Kleine Blatt, shows Jews as rats being swept from Germany’s doorstep and subsequently being denied entry to other democratic countries critical of Germany’s anti-Semitic policies. Such dehumanising metaphors, then, in contemporary anti-immigration discourse, represent a recontextualisation of features of an ‘old’ and recognisable language of discrimination and are indicative of the radicalisation which modern anti-immigration discourses have undergone (Krzyżanowski 2018, 2020).
Figure 1. Immigrants as Rats

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(Daily Mail, 17.11.2015)
The metaphors highlighted above are examples of what we might call ‘extreme’ metaphors. They are ostensibly figurative, either as a function of explicit markers of metaphoricity like *like* or as a result of their relative novelty/infrequency. In this sense, it may be argued that they are ‘deliberate’ (Steen 2008, 2010). They are also obviously offensive, inflammatory and/or derogatory. As a result, they are controversial and contested, capable of being rejected. De Lavelette, Andone and Steen (2019a,
2019b) discuss such contestations and rejections in terms of ‘metaphor resistance’ and point out that while metaphors can be helpful conceptualising devices they “may have presuppositions and entailments that are not in line with the interests and values of all discussion parties [and] may therefore elicit overt resistance by means of argumentative criticisms” (2019b, 720). As an example, in reference to David Cameron’s use of ‘swarm’, Labour leader Harriet Harmen said “he [Cameron] should remember he is talking about people, not insects”.

Extreme metaphors, as used by politicians, may attract critical media attention (e.g. Jeffries 2014; Shariatmadari 2015). Alternatively, they may be explicitly endorsed by the media. For example, in the case of ‘swarm’, The Express wrote:

> David Cameron was roundly criticised for using the word “swarm” in relation to migrants. But the dictionary definition is “throng or mass moving in turmoil”. And that surely, in the summer of 2015, is exactly what we have in Britain ... Swarm is an entirely appropriate word, signifying the chaos and lack of control that is changing Europe out of all recognition, and Britain in particular. The migrant swarm, and again, no apologies for using this word, is the biggest problem we face.²

Amidst such controversy, politicians may concede the inappropriateness of their metaphor or else double-down and defend its use as in the case of Trump’s ‘invasion’ metaphor where, at a rally in May 2019, Trump said: “I was badly criticized for using the word invasion. It’s an invasion”. Such endorsements and defences seem to involve some kind of literalisation and/or denial of the metaphoricity of the contested term.

While extreme metaphors may be challenged, including by certain sections of the media, it is important to recognise that they are often either examples or elaborations of metaphor practices that are common across mainstream media institutions. For example, the ‘swamp’ metaphor belongs to a broader class of more conventional metaphors which compare immigrants to (usually large and dangerous) bodies of water, as in the example headlines found in (1) and (2):

(1) *Flood of illegal migrants* highlights border fiasco (*Express.co.uk*, 11.11.2017)

(2) *Forget the Greek crisis or Britain’s referendum, this tidal wave of migrants* could be the biggest threat to Europe since the war (*Dailymail.co.uk*, 26.06.2015)

Similarly, metaphors that liken migrants to insects or rodents belong to a broader set of metaphors which compare them to other, typically bovine, types of animal:

(3) Nearly 500,000 refugees and their kids 'could flock to Britain from EU by 2020' (*Mirror.co.uk*, 31.05.2016)

(4) The hoax leaflet which caused a migrant *stampede* in deadly river crossing (*Express.co.uk*, 13.03.2016)

In relation to militarising metaphors, the Ethical Journalism Network (2015, 14) notes that UK newspapers have “long been using war-related terms such as ‘invasion’ to describe migration” as in the headlines found in (5) – (7):

(5) Crisis in Calais: ‘It’s a *warzone*’ (*Daily Express*, 31.06.2015)

(6) 200 British anarchists 'help migrants storm 10 miles into Channel Tunnel' during massive *invasion* from Calais (*Mailonline*, 04.11.2015)

(7) *Battle* to keep out EU migrants (*Express.co.uk*, 05.03.2013)
The question investigated in this paper, with a focus on animalising and militarising metaphors, is to what extent the most extreme versions of these metaphors influence attitudes toward immigrants and immigration policies.

2. Critical Metaphor Analysis and the Metaphor Framing Effect

From a cognitive linguistic perspective (Lakoff and Johnson 1980; Fauconnier and Turner 2002), metaphor is treated as much more than a literary linguistic device. Metaphor is seen as a conceptual process of frame-projection which, cued by metaphorical expressions in discourse, involves the mobilisation of a source frame to provide a template for sense-making inside a target frame. Metaphors establish a structured set of correspondences between elements in a source frame and elements in a target frame. Properties and relations that hold within the source frame are then used to feel and reason about elements in the target frame. As such, metaphors play a pivotal role in the construction of social realities. As Lakoff and Johnson (1980, 158) state: “we define our reality in terms of metaphors and then proceed to act on the basis of these metaphors”.

From a communicative perspective, metaphor is recognised as an important framing device (Entman 2004). Framing is defined as the “select[ion] of some aspects of a perceived reality [to] make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described” (Entman 1993, 52). Metaphors thus, potentially, lead to framing effects in attitudes, opinions, social perceptions, inferences and ultimately actions. As Semino (2008, 91) puts it, metaphor “has consequences for how a particular issue is ‘framed’ or structured, which aspects are foregrounded and which are backgrounded, what inferences are facilitated, what evaluative and emotional associations triggered, what courses of action seem to be possible and so on”.

Drawing on a combination of these perspectives, researchers in critical discourse analysis (CDA) have become increasingly concerned with the role played by metaphor in creating and sustaining patterns of prejudice and structures of social inequality. Here, metaphors are identified as key indices of ideology and as important devices in the discursive legitimation of discriminatory actions (Charteris-Black 2004; Koller 2004; Musolff 2004, 2016). Research in this tradition is motivated by attested patterns of metaphor usage and tends to involve detailed textual analyses that also take into account the wider social, political, historical and intertextual contexts of which those usages are a part.

Several studies approaching metaphor from this perspective have investigated metaphor in anti-immigration discourses, as they are articulated verbally, visually and multimodally (Catalano and Musolff 2018; Charteris-Black 2006; El Refaie 2001, 2003; Hart 2010; Santa Ana 1999, 2002). These studies find widespread and systematic evidence for metaphorical framings of immigrants as large bodies of dangerous water, as animals, and as invading armies among other less dominant framings. The ideological import of these metaphors is analysed in terms of their logical ‘entailments’ and the other inferential and affective processes they potentially give rise to. In the case of animalising metaphors, for example, the conceptual correspondence established by the metaphor means the same frame of reference used to reason about animals can be used to reason about immigrants (Santa Ana 1999, 203). Conceptualising immigrants as animals, then, not only serves to dehumanise them at a representational level, locating them ‘lower down’ in the Great Chain of Being, but in so doing makes it possible to at least conceive of treating them in the same way as we might animals, thus potentially increasing support for punitive measures like detention. As El Refaie (2001, 358) observes, it becomes quite ‘natural’, in response to animal-based metaphors, to talk of immigrants as being *hunted* or
caught in a net. Moreover, when the particular type of animal alluded to is regarded as dirty, dangerous or diseased, then the metaphor may attribute similar qualities to immigrants and therefore also, as a consequence, elicit feelings of fear or disgust toward them and further motivate containment measures.

In the case of militarising metaphors, immigrants are not dehumanised but rather assigned the status of an aggressive enemy to be feared and fought off. The metaphor therefore expresses a particular version of the US VS THEM schema (van Dijk 1998) and positions immigrants and ‘native’ citizens in conflict with one another. The metaphor also seems logically to call for actions ‘in defence’ of the country against immigration. As El Refaie (2001, 365) states, “the logical consequence of regarding refugees as an invading army is to defend oneself and fight back”. Militarising metaphors in immigration discourses therefore pave the way for innocent human beings to be treated as dangerous enemies and for war-like responses to be considered (El Refaie 2001, 368). For example, in the context of immigration discourse, militarising metaphors establish the plausibility of military intervention. This may be capitalised on in newspaper stories where the prospective action makes sense in the context of the co-textually present metaphor permeating the text:

(8) SEND IN ARMY TO HALT MIGRANT INVASION

Call for action to end chaos in Calais

THE escalating migrant crisis in Calais prompted demands yesterday for troops to be sent in. As one migrant died and 1,500 attempted to storm Eurotunnel trains, officials on both sides of the Channel bickered over how to sort out the mess. The ferry and train terminals are now under nightly siege as some 5,000 migrants in a nearby camp dubbed the “jungle” attempt to enter the UK illegally. (Daily Express, 30.07.2015)

In such instances, the boundary between the literal and the figurative becomes somewhat blurred (El Refaie 2001, 368). The proposed response in the target situation, i.e. deploying military personnel, is not an equivalent of the response in the source-frame, justified on the basis of corresponding ontological relations established between the two frames, but is one inherited directly from the source-frame.  

In CDA, the framing effects said to arise from metaphor usages remain, to a large extent, empirically unverified (cf. Hart 2018a). Indeed, some scholars in the CDA tradition believe that the socio-cognitive effects of discourse are not amenable to investigation under ‘laboratory’ conditions (see Boeynaems et al. 2017, 120). They argue that the necessarily artificial and decontextualized materials and settings typical of most experimental research mean that, on the one hand, effects that are potentially present in the real-world can go undetected in the lab while, on the other hand, any effects that are found are of little real-world relevance (ibid.).

One paradigm where the framing effects of metaphor have been empirically investigated is in what Boeynaems et al. (2017) refer to as the response-elicitation approach (REA). Researchers in this tradition argue that claims concerning the framing effects of metaphor cannot be based on linguistic analysis alone but must be supported by empirical evidence of changes in measurable variables like attitudes toward and beliefs about issues in the target frame (ibid. p.120). And here scholars have indeed found metaphor, articulated across semiotic modes (Flusberg, Lauria and Thibodeau 2018), to be a powerful framing device responsible for a range of framing effects (Landau, Sullivan and Greenberg 2009; Robins and Mayer 2000; Thibodeau and Boroditsky 2011, 2013, 2015; Thibodeau 2016; Utych 2018). For example, Robins and Mayer (2000) found evidence for a metaphor framing effect within a variety of discourse contexts. In one of the six experiments they report, participants read a short vignette about labour strikes framed either through a STRIKE IS DANCE OR STRIKE IS WAR
metaphor. Participants then rated their level of agreement with six statements, three of which were consistent with the STRIKE IS DANCE framing and three of which were consistent with the STRIKE IS WAR framing. Results showed that participants agreed more strongly with those statements that were consistent with the framing to which they had just been exposed. Interestingly, despite the clear effects of metaphor, it seems the influence of metaphorical framing may be covert. In both Robins and Mayer (2000) and Thibodeau and Boroditsky (2011) participants were asked to identify those aspects of the stimulus texts which they felt had influenced their decisions and reasoning in the main task. Very few participants mentioned the metaphoric framing, thus supporting Chilton’s (2005, 24) claim that metaphoric frame projections are “largely unconscious, until some linguist or discourse analyst comes along”.

In the context of immigration, Utych (2018) investigated the effects of dehumanising metaphors for immigrants/immigration and found that, compared to negatively-biased but literal texts, texts presenting a DISEASE/CONTAGION framing increased feelings of disgust and anger toward immigrants which led, in turn, to more negative attitudes toward immigration and to preferences for more immigration policies. The treatment text described illegal immigration as a disease and a poison that is plaguing the body of the nation and which must be eradicated in order to cure the country. The language is particularly strong and the frequency with which the metaphor is instantiated in the text is notably high compared to other studies, which have shown that a metaphorical frame established once at the beginning of a text is sufficient to achieve framing effects as further information becomes assimilated into this initial framing (Thibodeau and Boroditsky 2011). However, Utych observes that this language is “indicative of rhetoric that dehumanizes immigrants” (p.443). He found that over one third of news articles in the New York Times contained some dehumanization of immigrants over a two-month period in April to May 2010. For Utych, the multiple instantiations of the metaphor may therefore “mimic the effects in the real world, where individuals are exposed to many types of information that dehumanizes immigrants” (p.443).

Compared with studies in CDA, however, studies in REA are not generally motivated by observed evidence of attested discourse practices and do not typically proceed, in formulating hypotheses to be tested, from close textual analysis. It should also be noted that some experimental studies have failed to replicate the findings of earlier REA studies (e.g. Steen, Reijnierse and Burgers 2014), thus calling into question the conditions under which a metaphor framing effect might occur. According to Steen (2008, 2010), it is only a small sub-set of metaphors, which he characterises as ‘deliberate’, that actually have the potential to influence people’s opinions. Deliberate metaphors are those whose metaphoricity is overtly communicated. This would encompass extreme metaphors as they are defined above. For Steen, a metaphor is deliberate if it possesses some feature “which alerts the addressee that it is intended to be realized as a metaphor” (Steen 2010, 59). Such features include explicit markers of metaphoricity like like or figuratively speaking but also semantic features such as the directness of the metaphor (i.e. where the source-frame itself rather than an aspect of it receives lexical representation) and its relative novelty (novel metaphors are typically deliberate while conventional metaphors are typically not). In the case of extreme metaphors, it is their relative novelty/infrequency as well as their manifest offensiveness which serves as an ostensive indicator of metaphoricity. Of course, it is this overtess that also increases the potential for resistance to metaphor (de Lavalette, Andone and Steen 2019a).

The present study adds to the growing body of work in experimental CDA (Fuoli and Hart 2018; Hart 2018a/b; Hart and Fuoli 2020; Kampf and David 2019; Subtirelu and Gopavaram 2016). This approach to CDA deploys experimental methods as a form of triangulation to test whether audience responses to texts correspond with analysts’ interpretations of them, thus reducing the problem of biased or subjective readings (Luke 2002; Widdowson 2004). In other words, experimental CDA takes interpretive findings from qualitative textual analyses and treats them as hypotheses in experimental
research. In contrast to REA studies, the manipulations that constitute independent variables are motivated by attested discourse practices and hypotheses emerge from extensive critical engagement with texts. In order that findings can be generalised to real world contexts, studies in experimental CDA also strive for maximal ecological validity both in the experimental scenario constructed and in the stimulus materials used (Fuoli and Hart 2018). This is not always the case in REA studies where, as Robins and Mayer (2000, 84) note, it would be “worthwhile to collect converging evidence on metaphor framing within more authentic discourse situations”. The experiment reported below investigates the framing effects of dehumanising versus militarising metaphors of the kind identified in the CDA literature as recurrent features of anti-immigration discourses and exemplified in Section 1.

3. Experiment

The purpose of the experiment was to investigate the framing effects of two competing metaphors for immigration: dehumanising metaphors drawing on ANIMAL and DISEASE frames versus militarising metaphors drawing on WAR and CONFLICT frames. Because both metaphors are negatively valanced and because previous studies have been criticised for failing to include a non-metaphorical condition that can act as a baseline (Hartman 2012; Reijierse et al. 2015; Steen, Reijnierse and Burgers 2014), a literal condition was also included. Critical analysis of these metaphors predicts firstly that, as a function of the logical entailments, inferences and evaluations inherited from the source frames, they will lead to more negative social perceptions of immigrants and to more positive support for restrictive immigration policies, compared to a non-metaphorical framing. Secondly, the metaphor framing hypothesis predicts that the projection of a particular source-frame paves the way for a specific set of actions and perceptions to be seen as logical, natural or legitimate within the target frame. Particular metaphorical framings should therefore lead to stronger support for perceptions and policies which are consistent with that framing. So, for example, militarising metaphors for immigration ought to lead to increased perceptions of hostility and aggression in immigrants as well as increased support for measures like deploying the military as a means of controlling immigration. Conversely, since animals, especially those regarded as vermin (i.e., insects and rodents), are conceptually associated with disease, animalising metaphors should lead to increased perceptions of immigrants as disease-carriers and thus facilitate support for measures like health screening or quarantining. Hypotheses are therefore formulated as follows:

H1 Negative metaphorical framings will facilitate negative social perceptions of immigrants and stronger support for restrictive immigration policies, compared to a literal framing.

H2a Dehumanising metaphors will facilitate stronger support for perceptions and policies consistent with the ANIMAL/DISEASE framing.

H2b Militarising metaphors will facilitate stronger support for perceptions and policies consistent with the WAR/CONFLICT framing.

3.1 Methods

3.1.1 Participants and Design

Adapted from Robins and Mayer (2000), the experiment used a 3 x 2 mixed-subjects design in which participants read a text in one of three conditions – containing either (1) dehumanising metaphors...
drawing on the ANIMAL and DISEASE frames; (2) militarising metaphors drawing on the WAR and CONFLICT frames; or (3) no metaphors – before rating their level of agreement with a total of eight statements, four of which were consistent with the ANIMAL/DISEASE framing and four of which were consistent with the WAR/CONFLICT framing (see Measures and Procedure). The dependent variable was thus the levels of agreement that participants expressed toward the statements consistent with each framing. Control variables included political orientation and strength of feeling, positive or negative, toward immigration.

180 participants took part in the study, which purported to be about media preferences and consumption. Participants were recruited via Prolific (www.prolific.co), a crowdworking platform similar to Amazon’s Mechanical Turk (www.mturk.com). Eligibility was restricted by age (18+) and nationality (UK). 10 participants were excluded from the sample, leaving a final participant number of 170, of which 55 were assigned to the dehumanising condition, 57 were assigned to the militarising condition, and 58 were assigned to the literal condition. Participant ages ranged from 18 to 71 (M = 34.24, SD = 11.92). 70.5% of participants identified as female and 29.5% as male. 0% of participants identified as non-binary, other or preferred not to say. All participants except one reported English to be their first language. In terms of political orientation, the sample was skewed toward liberals. 56.5% of participants placed themselves below the mid-point on a Liberal-to-Conservative scale. 20.6% placed themselves above the mid-point and 22.9% placed themselves on the mid-point. However, political orientations were distributed evenly across conditions (\(\chi^2 = 1.07, p = .90\)). In terms of strength of feeling toward immigration, 39.4% of participants were recorded as having a low strength of feeling, 23.5% were recorded as having a high strength of feeling and 37.1% were recorded as having a middling strength of feeling. Strength of feeling was also distributed evenly across conditions (\(\chi^2 = 5.56, p = .23\)).

Participants received £0.75 remuneration. This worked out to be a pro rata rate of £12.06 per hour, which is above the UK living wage. Data were collected in accordance with the ethical guidelines of Lancaster University. All data were collected 5 August 2019.

3.1.2 Materials and Procedure

While REA studies frequently use vignettes removed from any specific textual environment, from a CDA perspective it is important to strive for maximal ecological validity in order that experimental findings can be generalised to real-world contexts. Stimulus texts were therefore created to reflect, as closely as possible, real news reports about immigration – both in terms of content and design. Texts comprised a headline and lead paragraph embedded in a template which had the look and feel of a genuine online news article (see Appendix 1). This was to mimic the experience that the majority of people now have of reading the news in digital formats (Ofcom 2014).

Texts took the same compositional form with relative size and positions etc. preserved across conditions. The three texts differed only in their use (or not) of metaphorical and otherwise frame-consistent terms in the headline and lead paragraph. The metaphorical versions of the texts contained seven frame-indices – one in the headline and six in the lead paragraph. Metaphorical expressions were motivated by attested discourse practices. The narrative structure and register of the article were also designed to imitate attested journalistic practices. The stimulus texts may therefore be described as near-authentic. The written texts used in the three conditions are presented below with manipulations highlighted in italics.
Dehumanising

**Latest: Immigrants Swarming into the Country**

We are currently facing a plague of immigrants swarming into the country from the continent, the latest official figures show. In a study that raises serious questions for the health of our country, migrant numbers are confirmed to be at a dangerously high level. Meanwhile, migrants continue to crawl into the country as the government seeks new ways to treat the problem and prevent the further spread of people.

Militarising

**Latest: Immigrants Marching into the Country**

We are currently facing an army of immigrants invading the country from the continent, the latest official figures show. In a study that raises serious questions for the sovereignty of our country, migrant numbers are confirmed to be at a dangerously high level. Meanwhile, migrants continue to march into the country as the government seeks new ways to neutralise the problem and combat the further onslaught of people.

Literal

**Latest: Immigrants Coming into the Country**

We are currently facing a line of immigrants coming into the country from the continent, the latest official figures show. In a study that raises serious questions for the state of our country, migrant numbers are confirmed to be at an unprecedentedly high level. Meanwhile, migrants continue to enter the country as the government seeks new ways to address the issue and stop the further movement of people.

The experiment was administered online using the survey platform Qualtrics (www.qualtrics.com). Once participants had accepted the task in Prolific, they were directed to the experiment. Upon entering the experiment, participants were presented with a basic information page and asked to provide their informed consent to participate in the study. Instructions were then provided where participants were told they would read a randomly selected news article before being asked to answer a number of questions relating to it. Participants were instructed to read the news article carefully and told not to use the back button in their web browser as this would terminate the experiment. This step was taken in order to prevent participants from re-reading the stimulus texts in light of the follow-up questions. Once participants confirmed that they had read the instructions, they were auto-randomly assigned to one of the three conditions and the stimulus text was displayed. Dependent measures were presented immediately after the stimulus text.

While some studies make use of attention or manipulation checks following the presentation of stimuli (e.g. Fuoli and Hart 2018; Hart 2018a/b), these checks can affect experimental outcomes as participants are alerted to the hypotheses being tested and respond differently to the dependent measures as a result (Hauser, Ellsworth and Gonzalez 2018). On this occasion, it was therefore decided not to include any check. However, other data quality assurance measures were implemented. In order to encourage participants to properly engage with the texts, stimulus texts were displayed for a minimum of twenty-five seconds before participants could move to the dependent measures. The length of time participants took to complete the experiment was also recorded. No exclusions were made on the basis of completion time, however, since no participant fell outside the range of 1.5 standard deviations below the mean (M = 246.9s, SD = 111.7). 10 participants were excluded for
having given the same agreement rating for all eight of the frame-consistent statements, which was taken to indicate a lack of proper engagement with the task.

Having responded to the dependent measures, participants were asked to answer a series of demographic questions relating to age, gender, first language, political orientation and strength of feeling toward the issue of immigration. Participants were also asked to state whether they had had any difficulty in completing the experiment as a result of a disability or technological problems. Finally, following previous studies (Robins and Mayer 2000; Thibodeau and Boroditsky 2011), participants were given a justification task in which they were asked to indicate what they felt had influenced the judgements they had given in the main task.

At the end of the experiment, participants were shown a short debriefing message informing them that the text they had read was fabricated. They were then thanked for their time and asked to provide their Prolific ID in order that payment could be authorised.

3.1.3 Measures

The dependent variable consisted of the agreement levels participants expressed toward statements offering negative appraisals of immigrants and advocating restrictive or punitive immigration policies which fit with the ANIMAL/DISEASE versus WAR/CONFLICT framings. Eight statements, four consistent with each framing, were presented in randomised order:

**ANIMAL/DISEASE-consistent statements**
- Immigration makes citizens more prone to infectious diseases
- It makes sense for immigrants to be screened for diseases
- Immigrants are a threat to the health of the country
- Immigrants should be placed in quarantine for a period following entry

**WAR/CONFLICT-consistent statements**
- Immigrants are often hostile and aggressive
- It makes sense to use the military to defend borders against immigration
- Immigrants are a threat to the sovereignty of the individual nations
- Immigrants should be interrogated upon arrival

For each item, agreement levels were measured on a 9-point Likert scale (anchored at 1 = strongly disagree and 9 = strongly agree). Cronbach’s alpha coefficients for both sets of items was 0.89, which exceeds generally accepted levels of reliability (DeVellis 2012, 109). Composite scores derived by averaging participants’ responses across the four items in each set were used as the basis for statistical analysis.
Political orientation was measured on a 7-point semantic differential scale anchored at 1 = Liberal and 7 = Conservative. Responses were then recoded to create a nominal variable defined by the midpoint of the scale: Liberal (1-3), Neutral (4) and Conservative (5-7). Strength of feeling toward immigration (whether positive or negative) was similarly measured on a 7-point semantic differential scale (anchored at 1 = not at all strong and 7 = very strong) with responses recoded, based on a median-split at 5, as Weak (1-4), Mid (5) and Strong (6-7). The justification task was a free-response task in which participants were asked to indicate what they felt had influenced their judgements after reading the news article.

Statistical analysis was conducted by means of a t-test for Hypothesis 1 and a two-way mixed ANOVA for Hypothesis 2. In light of criticism levelled at cut-off points of .05 and in line with experimental paradigms in recent communication research (Kampf and David 2019, 275), p values lower than .10 were treated as significant.

### 3.2 Results

Mean results for main variables are reported in Table 1 and presented visually in Figure 3. The first hypothesis predicted that the negatively charged metaphors would lead to harsher evaluations of immigrants and immigration and stronger support for policies that restrict the rights and freedoms of immigrants, compared to literal framings. In fact, however, results run contrary to this hypothesis with support for anti-immigration sentiments across the two metaphorical conditions being significantly lower ($M = 4.09, SD = 1.98$) than in the literal condition ($M = 4.53, SD = 1.94$) ($t = 1.37, p < .10$). The first hypothesis is therefore rejected.

The second hypothesis predicted that the particular metaphorical framing in the metaphor conditions would affect preferences for frame-consistent statements, with participants exposed to dehumanising metaphors showing more support for statements that accord with ANIMAL and DISEASE frames and participants exposed to militarising metaphors showing more support for statements that accord with WAR and CONFLICT frames, while participants exposed to the literal condition would show no preference in either direction. Results, however, are not in line with these predictions. A two-way mixed ANOVA revealed a significant main effect for frame-orientation of statements, where agreement levels were higher for ANIMAL/DISEASE-consistent statements ($M = 4.54, SD = 2.04$) than they were for WAR/CONFLICT-consistent statements ($M = 3.94, SD = 2.07$) ($F(1, 167) = 47.84, p < .001$), but no interaction effect ($F(2, 167) = .369, p = .692$). The second hypothesis is therefore also rejected.

<table>
<thead>
<tr>
<th>Framing</th>
<th>Frame-orientation</th>
<th>ANIMAL/DISEASE</th>
<th>WAR/CONFLICT</th>
<th>All statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dehumanising metaphor</td>
<td></td>
<td>4.48 (2.19)</td>
<td>3.82 (1.89)</td>
<td>4.15 (2.12)</td>
</tr>
<tr>
<td>Militarising metaphor</td>
<td></td>
<td>4.36 (2.21)</td>
<td>3.71 (1.99)</td>
<td>4.035 (1.87)</td>
</tr>
<tr>
<td>Literal</td>
<td></td>
<td>4.78 (2.06)</td>
<td>4.28 (2.00)</td>
<td>4.53 (1.95)</td>
</tr>
</tbody>
</table>

Table 1. Results. Support for frame-consistent statements.
When control variables are taken into account, political orientation had a significant main effect with statements negatively appraising immigrants and advocating punitive immigration policies, regardless of frame-consistency, receiving higher levels of support amongst Conservatives ($M = 5.45$, $SD = 1.93$) compared to Neutrals ($M = 4.98$, $SD = 1.59$) and Liberals ($M = 3.51$, $SD = 1.82$) ($F(2, 161) = 20.25$, $p < .001$). However, political orientation did not interact with the independent variables to elicit a metaphor framing effect for any particular political identity ($F(4, 161) = 1.13$, $p = .343$). Similarly, there was no interaction between the independent variables and strength of feeling toward immigration ($F(4, 161) = 0.23$, $p = .92$).

For the justification task, all responses were read and coding categories were developed inductively. Factors reported as motivating participants’ judgements were defined as: (1) Prior attitudes to and beliefs about immigration; (2) A perceived bias in the article without reference to language; (3) The negative language of the article; and (4) other/no response given. The third category included the identification of specific words, phrases or metaphors as well as more general references to the ‘language’, ‘tone’, ‘rhetoric’ or ‘wording’ of the article and thus captured expressions of metalinguistic awareness. Where participants identified multiple factors, any case which made reference to the negative language of the article were coded as (3). Cases which made reference to both prior attitudes and beliefs and a perceived bias in the article without reference to language were coded as (1) or (2) depending on which was judged to be the more salient factor in the response given. Responses were coded blindly by two coders. Agreement levels between coders were substantial at 71.2% (Kappa .62). All disagreements were resolved between coders prior to analysis of the data. Results are presented in Table 2.
Table 2. Motivating factors in participant judgements. Per centages in brackets.

<table>
<thead>
<tr>
<th></th>
<th>Prior attitudes and beliefs</th>
<th>Article bias</th>
<th>Negative Language</th>
<th>Other/no response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dehumanising metaphor</td>
<td>26 (47.3)</td>
<td>6 (10.9)</td>
<td>17 (30.9)</td>
<td>6 (10.9)</td>
<td>55</td>
</tr>
<tr>
<td>Militarising metaphor</td>
<td>18 (31.6)</td>
<td>10 (17.5)</td>
<td>8 (14.0)</td>
<td>21 (36.8)</td>
<td>57</td>
</tr>
<tr>
<td>Literal</td>
<td>30 (51.7)</td>
<td>5 (8.6)</td>
<td>1 (1.7)</td>
<td>22 (37.9)</td>
<td>58</td>
</tr>
<tr>
<td>Total</td>
<td>74 (43.5)</td>
<td>21 (12.4)</td>
<td>26 (15.3)</td>
<td>49 (28.8)</td>
<td>170</td>
</tr>
</tbody>
</table>

In all three conditions, prior attitudes to and beliefs about immigration, whether positive or negative, was the primary factor identified by participants as motivating their judgements. However, participants exposed to a metaphorical framing were significantly more likely to identify the negative language of the article as a motivating factor compared to participants exposed to the literal framing. Across the two metaphor conditions, 22.3% of participants identified the negative language of the article as a factor influencing their judgements compared to 1.7% of participants in the literal condition ($\chi^2 = 5.31, p < .05$). Within the metaphor conditions, participants exposed to dehumanising metaphors were significantly more likely to point to the negative language (30.9%) compared to participants exposed to militarising metaphors (14.0%) ($\chi^2 = 4.60, p < .05$). As revealed above, though, the negatively charged metaphorical language influenced participants’ responses in the opposite direction to that predicted.

3.3 Discussion

The metaphor framing hypothesis predicts that the metaphors used to frame an issue will, as a function of the logical entailments and inferential and affective processes they give rise to, influence how people feel and reason about that issue. Competing metaphors should therefore facilitate support for different sets of evaluations, decisions and actions which accord with the particular metaphors in question. This experiment investigated the framing effects of dehumanising metaphors drawing on ANIMAL and DISEASE frames versus militarising metaphors drawing on WAR and CONFLICT frames in the context of discourse on immigration. These metaphors, which are generally negatively valenced, might also be expected to elicit stronger support for anti-immigration sentiments, regardless of frame-orientation, compared to less florid literal descriptions. The experiment therefore also included a literal base condition. However, in contrast to previous studies (Hart 2018; Landau, Sullivan and Greenberg 2009; Robins and Mayer 2010; Thibodeau and Boroditsky 2011, 2013; Utych 2018), no metaphor framing effect was found either between competing metaphors or compared to the literal counterpart. That is, participants did not respond differently to statements consistent with ANIMAL/DISEASE or WAR/CONFLICT frames in a way that was dependent on whether they had been exposed to dehumanising or militarising metaphors. Neither did participants agree more strongly with statements negatively appraising immigrants and advocating restrictive immigration policies, regardless of frame-orientation, having been exposed to negatively charged metaphors compared to less emotionally infused literal equivalents. In fact, these metaphors lead participants to be more sympathetic toward immigrants and less receptive to hostile anti-immigration policies.
Of course, this is not to deny the existence of metaphor framing effects in other discursive contexts. The effects of immigration are typically discussed at a national level and many people feel directly affected by immigration. Other discursive contexts in which a metaphor framing effect has been found relate to more localised situations and events, such as crime levels or protests in a particular (fictitious) city, which are removed from the participant’s own immediate context (e.g. Hart 2018a; Thibodeau and Boroditsky 2011). It may be that, when it comes to issues which people perceive themselves to be more directly affected by, prior attitudes and beliefs, including political orientation, override any putative effects arising from textual features like metaphors. It is therefore important to control for such individual differences (cf. Robins and Mayer 2000, 85). Results from this study support findings from previous studies which show, unsurprisingly, that political orientation is a significant predictor of attitudes toward social issues (Hart 2018a; Thibodeau and Boroditsky 2011). Perhaps more interestingly, Hart (2018a) and Thibodeau and Boroditsky (2011) both found that conservatives/republicans were less likely to be influenced by metaphors than liberals/democrats (UK vs U.S respectively). Hart (2018a) interpreted this finding as indicative of more fixed views on social issues among conservatives compared to liberals. In the present study, however, no political identity was found to be more susceptible to the influence of metaphor than any other, suggesting entrenched views on all sides when it comes to the topic of immigration. A reasonable hypothesis might therefore be that those who are more ambivalent toward the issue, regardless of political orientation, would be more disposed to metaphor influence than those whose views are more deeply ingrained. However, no evidence to support this hypothesis was found in the present study. Nevertheless, degree of concern or ambivalence toward an issue represents an important variable to control for.

Neither is it to say that the particular metaphors investigated do not have social consequences. The findings reported here extend only as far as the population sample tested and how they responded at a specific moment in time. The sample used in this study was a convenience sample collected via the online crowd-working platform Prolific. Although platforms like Prolific and Amazon’s Mechanical Turk typically offer more diverse participant pools than most university campuses (Buhrmester, Kwang and Gosling 2011), these are not necessarily representative of national populations and do not capture all groups within society. Certainly, the results of this study do not tally with attitudes toward immigration reported at a national level (YouGov 2018). These metaphors may therefore have interpellating or mobilising effects for specific groups of people not sampled in this study, such as those who are already disposed toward far-right ideologies. The effects of these metaphors may also be sensitive to time and place. Whereas participants in Utych’s (2018) study of dehumanising metaphors in immigration discourse were exclusively U.S. citizens, participants in the present study were all of UK nationality. This raises the possibility at least of differences in how these metaphors are received based on national identity, culture and geography. These metaphors may also have different effects at different points in time, dependent on broader social, political and economic conditions (Thibodeau and Boroditsky 2015). Finally, any putative metaphor framing effect may be achieved only cumulatively, based on repeated exposures over time. These are all variables worthy of further investigation in future research.

However, it may also be the case that something about the metaphors themselves explains why the predicted effects were not found and the study therefore raises some interesting linguistic questions. The particular metaphors investigated are examples of what might be termed ‘extreme’ metaphors. These are political metaphors which are (a) manifestly metaphorical and (b) overtly offensive, inflammatory and/or derogatory. As such, they are more contestable (de Lavalette, Andone and Steen 2019a, 2019b). The metaphors investigated in this study stand in contrast to those investigated elsewhere, which are typically much more conventionalised (and therefore less obviously metaphorical) and less controversial (e.g. Hart 2018a; Robins and Mayer 2000; Thibodeau and...
Boroditsky 2011). The exception to this is Utych (2018) who investigated dehumanising metaphors for immigration, which would be characterised as extreme metaphors, and found that they did lead to framing effects in participants’ emotional responses and policy preferences. While it has been proposed that only deliberate metaphors, of which extreme metaphors would be an example, are likely to elicit framing effects (Steen 2010), results from empirical studies have been mixed. Further research is therefore required to investigate the impact that variables like conventionality and relative innocuousness have on a metaphor’s ability to achieve framing effects. Similarly, in the present study, metaphorical framings were instantiated repeatedly throughout the stimulus texts. Steen, Reijnierse and Burgers (2014) found that multiple instantiations of a metaphor, within the same text, had no positive impact on its ability to achieve framing effects. However, rather than reinforce the framing at a sub-conscious level, multiple instantiations of a metaphor may instead serve to draw readers’ attention to the framing effort whence it may be resisted. Again, further research is required to establish the precise impact of variables like reduplication.

A finding which emerges from this study, however, is that, for certain groups of people, extreme metaphors permeating a text have the opposite effect to that predicted and to that which can reasonably be assumed to have been intended by the communicator. The results of this study suggest that readers have more critical language awareness (Fairclough 1989, 1995) than they are sometimes given credit for. People, it seems, are critically sensitive to extreme metaphors and their implications such that the presence of these metaphors in texts provokes something of a backlash in how readers respond. In alerting readers to the metaphorical framing presented, extreme metaphors invite challenge and scrutiny and thus make it easier for the metaphors and their implications to be rejected. Support for this hypothesis comes from the fact that larger numbers of participants in this study, compared to other studies, identified the language used in the metaphorical stimulus texts as a factor motivating how they responded in the judgement task and appeared to respond differently as a result (cf. Robins and Mayer 2000; Thibodeau and Boroditsky 2011). For example, Robins and Mayer (2000, 83) report that “very few reasoners expressed awareness of the metaphor’s influence (as indicated on justification tasks)”. Similarly, Thibodeau and Boroditsky (2011) conclude that “the influence of metaphorical framing is covert: people do not recognize metaphors as an influential aspect in their decisions”. By contrast, participants in the present study did recognise metaphors (without necessarily labelling them as metaphors) and went on to rebuke and reject them. This was especially the case for dehumanising metaphors, thus supporting El Refaie’s (2001, 367) observation that “because the ‘rat’ [or ‘insect’] metaphor has not been sufficiently naturalised, it is accepted or rejected more consciously than the more dominant ‘war’ and ‘water’ themes”.

In support of this interpretation, consider the following illustrative examples of responses given in the justification task:

The article was extremely prejudiced against immigrants using phrases to make them seem like lower class citizens such as plague and crawling. Words that give the reader the image of them being animalistic, unwanted and dirty.

The article was referring to immigrants like they were insects of a disease, they are PEOPLE and they do not ‘swarm’

The horrible language like “onslaught”

The way immigrants are portrayed as an invading force

The news article didn’t hugely affect my judgement, if anything it’s aggressive tone made me more sympathetic to the immigrants entering the country.
On this interpretation, although the use of extreme metaphors by politicians and certain sections of the media often cause consternation and controversy among other sections of the media, as well as among critical discourse analysts, it may be that critical attention is best directed toward those metaphors that are more normalised but which nevertheless carry implications antithetical to progressive values. Often, these are metaphors drawing on the same or closely related source-frames, which simply get embellished in extreme metaphors.

Issues and Limitations

Although this study seeks to address some of the issues raised by previous studies, it is not without its own limitations and may be criticised on several grounds. Somewhat paradoxically, although statements oriented to ANIMAL/DISEASE frames received more support than those oriented to WAR/CONFLICT frames, it was dehumanising metaphors that proved most contentious. This suggests two things which should be taken into account in future research. Firstly, although they may be logical counterparts of one another within the structured set of correspondences established by the metaphors, the entailments of competing metaphors are not necessarily equal in their levels of acceptability and therefore we might not expect to see equal degrees of facilitation between different metaphors. The fact that a main effect was found for the frame-orientation of statements serves to highlight this. The problem seems to relate especially to prospective actions. Indeed, the largest difference between measures found in the data was for “It makes sense for immigrants to be screened for diseases” versus “It makes sense to use the military to defend borders against immigration”. Secondly, the set of entailments associated with one metaphor might be more tightly bound with that metaphor than the set associated with another metaphor. That is, an action or evaluation may follow more closely as a consequence of one metaphor than the equivalent action or evaluation in another metaphor. These issues are somewhat mitigated by the inclusion of a literal base condition, against which neither metaphor was found to positively affect responses to statements of either frame orientation. Nevertheless, careful consideration ought to be given to such issues when constructing measures in future experimental research.

A closely related problem is that the metaphors themselves are not equal. For example, the dehumanising metaphors drew on two source-frames, ANIMAL and DISEASE, which, although conceptually associated with one another, are not as closely related or related in the same way as the source-frames in the militarising metaphors, where WAR is an instantiation of the more generic CONFLICT frame. Similarly, the metaphors were not matched along linguistic dimensions like vividness, valence or conventionality, though in practice it would be difficult to find metaphors that do match along such dimensions. It should also be noted that although it might be desirable from a psycholinguistic perspective that the metaphors investigated be as closely matched as possible, this is less important from the perspective of CDA where the concern is with the metaphor practices observed in naturally occurring real-world discourse data.

Finally, the metaphors investigated were expressed in the stimulus texts in a single semiotic mode, language. Where news texts are not naturally mono-modal and it has been shown in other discursive contexts that images are of at least equal import in a text’s ability to achieve framing effects (Geise and Baden 2014; Graber 1990), an interesting direction for future research would be to consider the effects of frame-consistent images which, when co-textually present alongside linguistic metaphors, would provide a visual form of ‘metaphorical support’ (Steen, Reijnierse and Burgers 2014). Texts in which a metaphor is reinforced by frame-consistent images might then be more likely to elicit metaphor framing effects.
4. Summary and Conclusion

This paper contributes to the growing body of literature in experimental CDA. The use and effects of two metaphors for immigration, which we might characterise as extreme metaphors, have been investigated: dehumanising metaphors drawing on ANIMAL and DISEASE frames and militarising metaphors drawing on WAR and CONFLICT frames. Although these metaphors seem highly evocative and, when used by politicians and the press, cause much controversy for the implications they carry, results from this study suggest that these metaphors may not be as harmful for society as other related metaphors which draw on the same or similar source-frames but which, on the surface, appear more benign. Readers instead display high levels of critical language awareness toward extreme metaphors such that, in the context of immigration discourse, they cause readers to adopt a more sympathetic stance toward immigrants, though it is recognised that this might not be the case for all groups within society. The results of the study therefore show that the dynamics of metaphor influence might be more nuanced than is sometimes assumed and raise interesting questions for pursuit in further experimental research relating to metaphor, ideology, power and persuasion.

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References


This is a pre-proof version. For citation consult final published version. To appear in Journal of Language and Politics.


Appendix 1

[Image of The Daily News]


2 https://www.express.co.uk/comment/expresscomment/601512/Swarms-migrants-are-the-norm-the-UK-2015
3 Frames are understood as conceptual structures representing particular areas of knowledge and experience (Fillmore 1982 1985). They are accessed in discourse when words or phrases reference, explicitly or implicitly, the frame or its various aspects (see Hart 2017).

4 A case where the proposed response in the target situation is justified on the basis of ontological correspondences would be where fire metaphors in discourses of civil disorder justify police use of water cannon as the equivalent action in the target frame to the deployment of fire engines in the source frame (see Hart 2018a).

5 A number of studies now point to the advantages and reliability of obtaining data via such platforms (Behrend et al. 2011; Buhrmester, Kwang and Gosling 2011; Crump, McDonnel and Gureckis 2013; Klein et al. 2014; Mason and Suri 2012; Paolacci, Chandler and Ipeirotis 2010; Woods et al. 2015). While MTurk is the more widely used platform, Peer et al. (2017) compared MTurk with Prolific (as well as another platform CrowdFlower) and found Prolific to provide data quality that is “comparable or not significantly different than MTurk’s” as well as participants who seem to be “more naïve to common experimental research tasks” (p. 161), something which presents a problem for MTurk (Chandler et al. 2014).

6 Manipulations were not highlighted in the experiment materials.

7 This pattern was upheld across both frame-orientations. **ANIMAL/DISEASE**: Conservatives ($M = 5.76, SD = 2.05$); Neutrals ($M = 5.20, SD = 1.76$); Liberals ($M = 3.85, SD = 1.86$) ($F(2, 167) = 16.36, p < .001$). **CONFLICT/WAR**: Conservatives ($M = 5.14, SD = 2.02$); Neutrals ($M = 4.76, SD = 1.58$); Liberals ($M = 3.18, SD = 1.94$) ($F(2, 167) = 18.60, p < .001$).