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Symposium

Policy metaphors: From the tuberculosis crusade to the obesity apocalypse

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ABSTRACT

In this paper we examine the conceptual and political work that metaphors do, with particular regard to how they construct problems and thus in turn limit the range of solutions.1 Common metaphors in the United States, Canada, the United Kingdom and Australia are examined (war, disease and crime metaphors, and the economy and nation as a body) by analysing historical and modern texts about the policy issues of tuberculosis, immigration, asylum seeking, welfare, obesity and food insecurity. Through this we show that metaphors, in conjunction with discourses, may work to: naturalise and privilege certain constructions of problems; attribute blame and responsibility; support claims about the urgency and extent of required intervention (and who should deliver it, to whom and how); influence the identification and consideration of solutions by constructing the problem in particular ways; intentionally or unintentionally result in stigmatisation and non-trivial discrimination (social and workplace); and erase or highlight the role of actors, processes, social relations and systems. Vallis has developed the analysis, the bulk of the paper, and Inayatullah has articulated the theoretical links to causal layered analaysis (CLA). While there are multiple ways to use CLA, in this paper we use CLA to map a number of issues accross perspectives and frames, and to deconstruct creating the possibility for alternative futures. We do not explore alternative or preferred futures.

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1. Introduction

As Lakoff and Johnson argue, metaphor goes beyond language (Lakoff & Johnson, 1980). It is pervasive in our thoughts and actions because the ways in which we think, perceive and act are metaphorical in nature. Our conceptual system is metaphorical, thus we experience the world in metaphors.

Likewise, many metaphors are so deeply embedded in everyday language that they become invisible (e.g., I see what you mean, I've changed my mind) or, in other words, become what Lawley and Tompkins classify as 'embedded metaphors' (Lawley & Tompkins, 2000).

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R. Vallis, S. Inayatullah/Futures xxx (2015) xxx-xxx

However, Kovecses makes the point that the less noticeable a metaphor is, the more effortlessly it is used for thought (Kovecses, 2010). Thus, metaphors may become invisible heuristic devices and a mental shortcut for understanding one thing in terms of another.

This means that whether used consciously or unconsciously, metaphors can naturalise particular worldviews. Take, for example, the use of war metaphors in business (Liendo, 2001), sport and politics (George Lakoff, 1995; Mio, 1997). Martial metaphors have become so ubiquitous they work to naturalise (and perpetuate) the aggressive and win-at-any-cost behaviour, values and systems common to those domains. Martial metaphors may also be used to justify social injustices and anti-libertarian policies. However, whatever kind of metaphor is used, the important thing to note is how dominant metaphors, in conjunction with discourses, not only describe reality but create it. And, in turn, historical and social contexts also often determine what kind of metaphors gain currency and become entrenched (Carter, 2004).

In the following section we discuss common metaphors historically used to construct policy issues: war and the nation and/or economy as a body. We use causal layered analysis (CLA) to do this as CLA was specifically designed for unpacking myths, metaphors and the discourses used to construct issues. CLA analyses issues at four distinct conceptual levels: litany, systemic, worldview or discourse, and metaphor or myth (Inayatullah, 2005). CLA is both a theory of knowledge and methodology, a tool for gaining "insight into the internal and external stories of persons and organisations" (Inayatullah, 2005). CLA is used in a number of ways. These include:

First, as a way to map the present or a possible future. The issue or problem is mapped across different stakeholders or worldviews. Deeper insight into how "the other" sees the issue is gained. This can lead to more robust strategies since the "the other" is now included in the analysis. Often researchers and organizations only see the problem and the solution from their own perspective. They live in their own mythology seeing it as objective reality. By bringing in different worldviews, objectivity and the politics of the present are challenged. This paper generally engages CLA in this approach and different frames of reference are used to map various trends.

Second, as a way to unpack an issue. After articulating the litany of the issue, systemic causes are explored. The worldview that creates the system is identified. Finally, the underlying supportive myth or core metaphor that underpins the worldview is articulated. Solutions for every level are explored. By digging deeper, the intent is to find more effective, less short-term, quick fix solutions. This paper also uses this approach. It deconstructs and thus opens up the future.

Third, as a way to create a preferred future. The issue or problem is understood from the four levels as it is currently exists and how it could be, the preferred future. CLA thus is pivotal in helping create a desired future. In this paper, we do not use this approach, nor the approaches outlined below.

Fourth, as a way to deconstruct and reconstruct by challenging the current reality. After the current reality is unpacked or deconstructed across the four layers, an alternative worldview is considered. The issue is then understood from that perspective. After considering the current reality and the deconstructed alternative, a transformed solution or future is articulated. The alternative future that results thus has an oppositional perspective built into it.

Fifth, by mapping multiple worldviews and creating an integrated future. This last approach adds complexity by including other worldviews. Thus, along with the current and the alternative reality, other worldviews are brought in. These then are considered and an integrated strategy that is inclusive of multiple positions is negotiated. Horizontal space is thus expanded through including multiple frames of reference.

Finally, CLA can be used to game the future. In a workshop setting, different groups role-play the various levels. One group plays the role of the litany and defines the issue and the headlines. A second group plays the role of the system and speaks from the view of systemic causation. A third group represents the different worldviews salient to the issue including the view from future generations, from 2030 and beyond. The last group holds the space of metaphors, and finds new stories to create new litanies. As the game moves along there is interplay and a new narrative, an alternative future, results. Most often, it is the metaphor table who suddenly finds a new story that changes the direction of the debate. They create a new lens from which to see and create a different future. Even if the issue is current, by including the view of future generations, the future is built into the CLA process. And, critically, the game helps create an alternative future strategy that is more likely to succeed since the perspectives of the four levels have been consulted. As the iterative nature of the game develops, there is weaving in and out and the litany group can often begin to see the core metaphor underneath their objective position. The metaphor group can articulate new litanies as well. Subsequent research on the trends (war, obesity, and hunger) investigated in this paper could benefit from using the CLA game.

Thus, while metaphors ground analysis at the deepest level, there can be metaphors expressed at any level. Indeed, as Kenny (2015) has articulated, each level can even have its own scenario set. And the third level, the worldview, can be further unpacked into three subsets: stakeholder, civilization, and episteme. There is thus room for creativity within the methodology.

While all levels are important, in terms of methodology, level four is often pivotal in leading to organisation and social change. Milojević (2015) writes:

The main function of CLA at this fourth layer and as an action research methodology is therefore to: (1) Unveil the unconscious, deep stories, and; (2) Ensure their alignment with positive, preferred futures visions. More information on its own does not change behaviour. Stories or narratives, on the other hand, let us know if strategies for change are possible within existing narrative frameworks. Therefore, the CLA process can help to ensure that constructive inner stories are aligned with targeted strategies, and vice versa (547).

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R. Vallis, S. Inayatullah / Futures xxx (2015) xxx-xxx

This level is focused on narratives (stories) or, in other words, deep myths or metaphors. Metaphors are often the vehicles of myths. Myths, understood here, are not platonic ideals but created through concrete historical events, from which meanings are passed down through generations. Myths then would certainly be different accross civilizational and nations. The issue with myths is not whether they are true or false but what insights they can give us about the worldview, the frame in question. As discussed elsewhere (Milojević & Inayatullah, 2015, p. 157):

Myths and metaphors are not best judged as true or false, but as mentioned earlier, as helpful and enabling, serving, or as misaligned, mismatched, and double-bind creating. In the CLA process, narrative in a technical sense is focused at the fourth level. However, in a deeper sense, insofar as the negotiation of reality is narrative based, one can argue that all levels to some extent are narrative based. The first two levels are more external and data oriented, while at the worldview and metaphor level, narrative is far more explicit and subjective, individual and cultural. Integration of narratives at all four levels is what gives narrative foresight more power and effectiveness.

Arguably, it is important that researchers and policy-makers unpack the metaphors and worldviews surrounding the issues they work with since, as will be demonstrated in the next section, their work often serves political purposes or may be appropriated for political purposes. Insofar as the metaphors they use to construct problems and solutions may stigmatise, disadvantage or otherwise harm social groups, it is crucial to use CLA as a way to include "the other" and their worldviews.

2. Metaphor in policymaking

2.1. War metaphors

It has almost become a truism that whenever there is a government campaign declaring war on something (whether it is drugs, terrorism or disease) one of the first casualties is civil liberties. And, as Lakoff and Johnson note, when governments, media and other powerful groups use metaphors it has implications for policy, legislation and public opinion: "The people who get to impose their metaphors on the culture get to define what we consider to be true" (Lakoff & Johnson, 1980, p. 134).

A classic example of this can be seen in the following study of a 'hygiene as war' metaphor. US historian JoAnne Brown studied the martial metaphors that developed around the control and experience of tuberculosis after the American Civil War (Keiger, 1998). Using an example from the earlier times rather than the present is useful here as examining metaphors and discourse from another era provides greater analytic distance and highlights the constructed nature of discourses and metaphor usage.

While analysing advertisements, ordinary correspondence, health textbooks, popular literature, scrapbooks, daily newspapers, and periodicals of the time, Brown was struck by the wholesale shift from agrarian metaphors for disease (used earlier in the nineteenth century) to battlefield metaphors. She found that hygiene, the identified solution to the threat of tuberculosis, became not only treated as a form of warfare, but holy warfare (Keiger, 1998).

Thus, an announcement about the formation of the National Association for the Study and Prevention of Tuberculosis (NASPT) read:

It is called the 'Crusade,' the 'Warfare,' the 'Struggle' against consumption. The great awakening is at hand. (Keiger, 1998)

In addition, in 1915 the NASPT created a public health campaign (focused on hygienic habits) called the 'Modern Health Crusade'.

Brown tied the proliferation of battlefield metaphors to the fact that many of those sitting on public health committees in 1915 had lived through the American Civil War and were influenced by their memories of that experience. She also argued that many of the victims of tuberculosis following the war were Civil War veterans who chose (through the use of martial metaphors in essays, poetry and songs) to portray themselves as engaged in a noble struggle against the enemy of consumption (Keiger, 1998).

While the use of military metaphors by tuberculosis patients to portray themselves as heroes and martyrs rather than victims and carriers of infection was relatively harmless, their use by public health campaigns and law makers was less so. As Dale Keiger eloquently states:

If enough people think of a public health effort as a war on disease, it becomes easier to enact policies that curtail civil liberties (Keiger, 1998).

Thus, the war metaphor works to prioritise solving the immediate crisis (whether tuberculosis or obesity) while downplaying other concerns (such as civil liberties).

Brown argues that public health policies introduced during 'the war on tuberculosis' to reduce contact between carriers of tuberculosis with the general public were eventually appropriated by those calling for racial segregation (Keiger, 1998). Disturbingly, advertisers of the time (of both commercial products and public health messages) personified germs as characters of African, Italian, Chinese, Slavic, and Jewish descent. Likewise, medical literature demonised African-Americans as carelessly unhygienic and a risk to the white population. Brown argues that public acceptance of legislated public health policing (such as imposing fines for spitting) was aided by advertising which portrayed "jolly health cops protecting little white kids from germs that looked suspiciously like immigrants and slum-dwellers" (Keiger, 1998).

A causal layered analysis of the construction of the tuberculosis problem at the time, then, would look something like shown in Table 1.

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R. Vallis, S. Inayatullah/Futures xxx (2015) xxx-xxx

Table 1

Causal layered analysis of tuberculosis problem.

Litany: Tuberculosis is a disease which the public and officials must 'fight'

Systemic: Tuberculosis is caused by poor hygiene (Solution: a public health campaign to improve hygiene habits)

Dominant Worldview: contact between 'careless' unhygienic consumptives (the poor, immigrants, and Afro-Americans) a threat to the Anglo-Saxon, Christian hygienic population. (Solution: segregate the 'danger' population from the 'healthy' population through public health policing of segregation and hygiene laws.)

Metaphors: 1) A holy war to protect the clean (the Anglo-Saxon, Christian population) from the unclean (the poor, immigrants, Jews and Afro-Americans). 2) The American Anglo-Saxon, Christian population as a community 'body' threatened by the disease of Others.

The metaphorical construction of the tuberculosis problem at the time, then, was that of:

- 1. Fighting a holy war to protect the clean (the Anglo-Saxon, Christian population) from the unclean (the poor, immigrants, lews and Afro-Americans).
 - 2. The American Anglo-Saxon, Christian population is a community 'body' threatened by the disease of Others.

2.2. The nation as a body

UK academic Andreas Musolff has written extensively on the function of metaphor in political discourse and notes that the nation-as-body metaphor dates back to Renaissance times and remains pervasive, his analysis of metaphor use in media coverage of public debate about the European Union indicates (Musolff, 2006).

So what are the implications of the nation-as-body metaphor for immigration policy? As Geary notes, metaphors prime "different attitudes, responses and behaviours" (Geary, 2012). Thus, research has found that framing the issue of crime metaphorically as a predator or a virus yielded different suggestions for solving the crime problem (Thibodeau, Mcclelland, & Boroditsky, 2008). Study participants given the crime-as-virus metaphorical framing were more likely to suggest social reform than participants given the crime-as-predator framing (Thibodeau et al., 2008).

Likewise, several studies performed in the United States illustrated that decisions are influenced by misapplied associations made with past experience and generic knowledge (Gilovich, 1981). Thus, in one study, subjects asked to rate hypothetical college football players' according to professional potential were influenced by irrelevant comparisons with current professional footballers. In another study, recommendations on how to resolve a hypothetical international crisis differed according to whether the framing of their question contained words designed to trigger associations with the Second World War, the Vietnam War, or no associations.

Similarly, researchers in the US found that interviewees expressed more negative views about immigration when America was metaphorically described as a body (Landau, Sullivan, & Greenberg, 2009). Furthermore, subjects who read articles about harmful bacteria, and who reported heightened motivation to protect their body from contamination, expressed harsher attitudes toward immigrants entering the United States when body-metaphoric terms were used to describe the country.

A central feature of the nation-as-organism metaphor is that the social community is treated as a physical body (Levine, 1995). And, just as the body may be threatened by external forces and invading pathogens, the social body is treated as vulnerable to corruption by invading sub-groups. Thus, early 1900s documents in the US described immigrants as:

a "stream of impurity," that needed to be thoroughly filtered, a "tide of pollution" that had to be purified, and a "turgid stream of undesirable and unassimilable human 'offscourings' (O'Brien, 2003).

The same metaphors of 'tides' and 'waves' reappear in mainstream media reporting on the United States' growing Latino population which abounds with terms such as:

... awash under a brown tide... the relentless flow of immigrants... like waves on a beach, these human flows are remaking the face of America... (Santa Ana, 2002, p. 7).

Musolff also notes that a number of Western countries use the nation-as-a-body metaphor to frame their immigration policy as a defensive stance against natural disaster, enemy invasion, epidemic, or disease-carrying, parasitic organisms (Musolff, 2011).

Another common metaphor applied to immigrants is that of pollution (Cisneros, 2008). Santa Ana (among others) argues that it was because of the conceptual framing created by metaphors used to portray Latinos as pollutants, invaders, outsiders, burdens, parasites, diseases, animals and weeds that several anti-Latino referenda were passed in California (including Proposition 187, a bill to deny social services to illegal aliens) (Santa Ana, 2002).

Arguably, whenever immigration and asylum debates are 'primed' or 'framed' with metaphors of the nation as a body, they trigger associations of infection or contamination, even without these words being directly used. Analysing the historical social justice implications of the nation-as-organism metaphor (similar to the nation-as-body metaphor), O'Brien found that these metaphors were consistently used in the political arena in the US to support restrictive legislation against minority groups, or to block rights-granting legislation (O'Brien, 2010).

It is not difficult, then, to see how the use of pollutant, invasion and epidemic metaphors, along with the nation-as-a-body metaphor, transforms the immigration debate into an issue of survival—of preventing social and/or racial annihilation.

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R. Vallis, S. Inayatullah / Futures xxx (2015) xxx-xxx

Table 2

Causal layered analysis of asylum seeker problem.

Litany: Australia will be overwhelmed by asylum seekers

Systemic: People smuggling is a border protection and security issue (Solution: Increase border security)

Worldview: The Australian Government will decide who passes its borders

Metaphors: 1) The nation-as-body threatened by the boat people (Asian Invasion), 2) security as containment, 3) asylum seeker arrival as a natural disaster

The key metaphors are: (1) The nation-as-body threatened by the dirty 'the other', invaded, (2) security as containment, (3) asylum seekers as a natural disaster.

This framing may then, in part, explain the media, public and government hysteria over asylum seekers who arrive by boat in Australia. Frequent media and political use of the term 'illegal boat people' in Australia has also constructed seeking asylum as a crime, and asylum seekers as criminals, despite the fact that seeking asylum is not an illegal activity. However, mapping the crime/criminal categories onto asylum seekers serves the useful purpose of framing the asylum debate within a security metaphor. Operation Sovereign Borders, the name of the coalition's expensive plan to 'stop the boats', invokes a basic security metaphor of security as containment (by securing borders to keep the threat out) – similar to that invoked by the US after the September 11 attacks (Lakoff, 2001).

A causal layered analysis of the issue of asylum seeking in Australia, then, might look something like shown in Table 2.

2.3. The economy as a body

The application of human body metaphors to the economy dates all the way back to the eighteenth century, with Francois Quesnay, a French physician and economist, being the first to compare the economic and physiological systems (Kovács, 2007). Quesnay likened the circulation of capital to the circulation of blood in the human body and saw the organs as representing different sectors of the economy (Kovács, 2007).

In this way talk about "economic growth" implicitly (rather than explicitly) draws on the metaphor of human physiological growth and its attendant values (i.e. growth is healthy, natural and good, and creates strength and power, while lack of growth is unhealthy and leads to, or is a sign of, weakness, disease and/or decay).

But while 'economic growth' may be used to refer to expansion of GDP and revenue, the embedded metaphor retains the attendant positive values attached to human physiological growth. Using the same metaphor of the economy as a body, the opposite of 'growth' is decline or decay, and the term 'ailing economy' can be found in newspapers on a daily basis.

Given the negative connotations of sickness, it is easy to see why policies that claim to support economic growth are widely viewed positively, despite evidence that the pursuit of unlimited economic growth threatens both human and environmental health (Jackson, 2009).

And, as UK academic Doreen Massey points out, conceptualising the economy in terms of "natural forces" (such as physiological change) naturalises (and thus makes invisible) a whole set of highly coordinated human activities and social relations, as well as conceptually limiting the potential for intervention and change (Massey, 2013).

Further examples of this naturalising can be seen in numerous issues constructed as 'burdens' upon the economy, where the economy is treated as a body vulnerable to diseases and activities that weigh it down and slow its growth.

The issue of welfare is routinely constructed as a burden on the economy, and welfare recipients termed 'parasites' ("If This New Program Works, Then Drug-Abusing Welfare Parasites Will Be a Thing of the Past," n.d., Tea Party Politics, 2014). Thus, this economic metaphor is often used to gain acceptance of policies which curtail the rights or choices of those receiving welfare payments, as seen by the latest move in Australia to give cashless cards to welfare recipients to stop them from spending money on alcohol and drugs (Ireland, 2015).

Likewise, a 2007 UK government report on obesity repeatedly uses the economy-as-a-body metaphor to frame the issue of obesity as a burden on the economy (bold emphasis mine):

Obesity threatens the health and well-being of individuals and will place an intolerable **burden** on the Exchequer in terms of health costs, on employers through lost productivity and on families because of the increasing **burden** of long-term disability (Butland et al., 2007, p. 17).

The body, particularly its growth, frames the debate such that other possibilities are naturally seen as less desireable. CLA challenges the dominant frame by seeing the issue from multiple perspectives. For example, even within the discourse of the body, instead of growth, one may suggest balance, moving the discourse to the ecological. The underlying metaphor thus becomes the "right" amount instead of the endless amount of goods. One can also bring in non-Western approaches. For example, from Tantra, the philosopher P.Sarkar (1987) has argued for *prama*, or dynamic equilibrium instead of endless growth. In Chinese systems, yin-yang is seen as informative, allowing for growth and decacy.

3. Metaphors at work in policy

From the analyses above, we can see that metaphors:

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R. Vallis, S. Inayatullah/Futures xxx (2015) xxx-xxx

- Stem from discourses/narratives based on historic events and physiological, personal and collective experiences. (Example 1: martial metaphors that developed around the control and experience of tuberculosis after the American Civil War. Example 2: framing the nation as a body due to our own embodiment.). They are historically grounded.
- Can subtly (or not so subtly) frame thought and discourse which can affect decisions and behaviour, thus constructing reality. (Example 1: Different metaphors of crime affecting recommendations for how to reduce crime. Example 2: Decision making about hypothetical foreign crises influenced by irrelevant historical associations invoked through metaphor.)
- Can be put to political purposes. (Example 1: framing public health efforts as a 'war on disease' to gain acceptance of policies that curtail civil liberties. Example 2: framing the asylum seeking debate in security and disaster metaphors to gain support for a plan to 'stop the boats' and stem the Asian invasion)
- Have implications for law, policy and social change. (Example: During the 'crusade against TB', public health policies introduced to protect against spread of tuberculosis were appropriated by those calling for racial segregation laws and policies.)

In the following section we analyse competing metaphors and discourses around the trend of obesity and food security. The comparisons highlight how some metaphors and discourses are privileged over others, and also illustrate how the choice of metaphor allocates blame, constructs the magnitude and urgency of problems, can erase or highlight agency, may valorise or stigmatise and, most importantly, influence the construction of solutions.

Competing litanies, discourses and metaphors are summarised in tables. The term discourse here is used (as it is in Critical Discourse Analysis) to refer to language as a form of social practice (Fairclough, 2013). Thus, 'discourse' refers to discursive structures and acts that both reflect a particular ideology or way of viewing the world (e.g. scientific, medical, feminist) and which may reinforce or challenge beliefs, myths, doctrines and power relations. This is level three in the CLA approach.

3.1. Trend 1: obesity

Analysing 16 news articles and online texts from Australia, Canada, the United Kingdom and the United States about the issue of obesity, a range of metaphors, discourses and litanies were identified, as seen in Table 3.

3.1.1. Frame 1: the obesity apocalypse

Under **Frame 1**, the metaphor at work is that of the nation or national economy as a body. Obesity is the plague, burden or disaster so grievously affecting that body that it could mean the end of our civilisation (the obesity apocalypse). This metaphor supports calls for urgent intervention by the government to 'restore national health' and 'reduce the burden of obesity' and usually places the blame on systems, although it can also be used to share blame (individuals and the environment) or blame certain groups, for example, the obese (for their poor choices and habits), parents of obese children and doctors who do not weigh obese patients.

Examples invoking this metaphor include the following headlines:

Tobacco can show us the way to tackle our obesity disaster (Jebb, 2015).

Obesity plague 'no myth' (Miller, 2009).

"Tsunami of obesity" threatens all regions of world, researchers find (Wise, 2011).

Table 3Causal layered analysis of obesity problem.

	Frame 1	Frame 2	Frame 3	Frame 4	Frame 5
Litany level (visible problem)	Number of obese, cost of obesity, epidemiological data	Negative health consequences of obesity (mortality and morbidity identified by medical research)	Evidence of weight bias among health experts and others, social outcomes for the obese, harmful obesity treatments	Fat-shaming, body policing	Undisciplined fat people, fat people unashamed of their weight.
Systemic level	Obesogenic environment is to blame Government intervention required	Obesity as a lifestyle or genetic disease to be 'fought' with drugs, surgery, diet and other interventions.	Weight-based workplace discrimination and the pathologisation of obesity by those who stand to gain from it (drug companies, doctors)	Narrow, patriarchal views about what constitutes a 'normal, attractive, healthy' body that exclude fat people.	Obesity caused by gluttony, sloth, moral failure, weakness and greed
Worldview or discourse	Public health, economic, political	Medical-scientific/public health	Fat activists, psychologists	Sociologists, feminists, size acceptance activists	Moral, religious
Myth and metaphor	The Obesity leAppedcalypse	The War on fat	Crimes against fat	The Body Police	Obesity as a Scarlet Letter

Note that the use of metaphors and discourses from different frames may occur in a single text, with elements from frames 1, 2 and 5 tending to be used in conjunction, while elements from frames 3 and 4 tend to be co-located.

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R. Vallis, S. Inayatullah/Futures xxx (2015) xxx-xxx

3.1.2. Frame 2: war on fat: obesity as 'the enemy'

Under Frame 2, the war metaphor is used to paint obesity as the enemy of health. Thus, in the examples below (from medical journals, a government website and news sources) several martial words are used in headlines to invoke the war metaphor. This metaphor supports calls for urgent and even extreme action to 'win the war', whether in the form of millions of dollars of medical research and development (to produce better anti-fat weapons), expensive government programs involving health and medical interventions at schools and in the home, or shock tactics such as those employed by the graphic Live Lighter campaign. The metaphor can be used to blame both unhealthy systems (obesogenic environments) and/or individuals who 'succumb to the enemy' by making poor lifestyle choices.

Healthy Eating and Activity Together (HEAT): Weapons Against Obesity (Gottesman, 2003).

The war on obesity: Heavy weapons (The Economist, 20 November 2014).

Fighting obesity with technology (Grindle, 2012).

3.1.3. Frame 3: the obese as victims of crime

Under Frame 3, the crime metaphor is used to present the obese as victims, whether of misinformation, the food industry, prejudice and discrimination, or a conspiracy perpetrated by the diet and weight loss industries. The crime metaphor is used by Health At Every Size activists and fat activists to challenge the authority, neutrality and claims of medical and public health experts about obesity. When teamed with social justice discourse, the blame for negative outcomes of obesity (social ostracism, lower pay, fewer job opportunities, more harassment, depression, morbidity and mortality associated with yo-yo dieting, bariatric surgery and weight-loss drugs) is assigned to the diet and weight loss industries, obesity experts and organisations and individuals who display weight bias. Use of the crime metaphor supports calls for workplace antidiscrimination legislation, social acceptance for obese people, and for the food, diet and weight-loss industries to be scrutinised or 'put on trial' (along with many assumptions and obesity interventions that cause weight bias).

This frame tends to be used to talk about obese children, likely because of the common social construction of children as a powerless and not responsible for their own wellbeing (Schneider and Ingram, 1993).

Fat tests make children victims in war on weight, parents warn (Webb & Schubert, 2006).

Victims of the Food Industry (Deville, 2012).

Weight Stigma: Doctors Guilty of Prejudice Against Obese, Too (Nainggolan, 2014).

3.1.4. Frame 4: the body police

In Frame 4 the focus at the litany level is on socio-cultural practices (such as fat shaming) used to punish nonconformity with dominant gender and beauty norms. Unlike Frame 3 where the focus is on systems, Frame 4 uses the police metaphor to focus on individuals. Thus, this frame locates the blame for exercising anti-obesity attitudes (through fat shaming and body policing activities) with individuals and individual texts, and challenges individuals' rights to engage in such behaviour through using the police metaphor in an ironic way. The use of the police metaphor invokes common knowledge that in reality there are no 'body police' because being fat is not a crime. The term 'body police' therefore works to highlight the false authority of those who engage in policing work (by punitively reacting to 'size crimes' and enforcing beauty standards). Accordingly, the solution to the problem is seen as discouraging policing by using sociological, political and feminist critiques to reject and challenge the authority of those individuals that engage in body policing (to take the badge of authority away from the body police, so to speak).

Unlike other metaphors of obesity, this metaphor was not found to be used by the mainstream media. Rather, the examples of use were found on websites and blogs with a 'body positive' educational and empowerment focus.

Call the body **police!** We've got a thin one! (Kite & Kite, 2011)

Body **policing** as health activism (Brown, 2014).

No body needs the body police (Mattar, 2013).

3.1.5. Frame 5: obesity as a scarlet letter

In Frame 5 the blame for obesity is placed entirely on individuals. Obesity is treated as a physical manifestation of sin (like the scarlet letter worn by adulteress in the novel by that name) that they should be ashamed of (and if they are not, others should shame them about their sin until they take action to lose weight). The metaphor of fat as a scarlet letter naturalises the construction of fat as the result of certain immoral behaviours (sloth and gluttony) and supports blame of fat individuals for obesity. Using the scarlet letter metaphor, the fatter the person the bigger their sin can be assumed to be. The metaphor is often used to reject other causes of obesity (e.g. the obesogenic environment, medical, psychological or genetic causes) or blame not focused on individual behaviour. The solution supported by this metaphor and discourse is to shame the obese out of their problematic behaviour and to punish them for their sins by imposing higher health insurance costs (Barry, Brescoll, Brownell, & Schlesinger, 2009, p. 39).

These examples of use of these metaphors were found in the mainstream media news headlines, however, the third article below offers a rebuttal to the view that fat people are just greedy.

Solve America's Obesity Problem With Shame (Freind, 2012).

Why are today's young women so unashamed about being fat? (Kelsey, 2014)

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R. Vallis, S. Inayatullah / Futures xxx (2015) xxx-xxx

Fat people are **just greedy**, says BMA chief (Smith, 2007).

3.1.6. Summary of obesity metaphors

Each framing of the issue, and its attendant litany, discourse and metaphor, calls for quite different solutions in response to the 'problem' of obesity. Thus, as one team of researchers has noted, metaphors "help people to think about who is to blame" for problems (Barry et al., 2009).

As seen with the examples provided above, the metaphor provides strong cues about how to fix the problem. Thus, if Frame 5 is invoked, the individual is to blame for their moral weakness and must improve their willpower to change their ways. In contrast, if Frame 1 is invoked, systems are to blame (culture, the food industry, education, urban environment) and government tax-funded intervention is required to fix these systems. Frame 2 also locates blame with individuals, though in terms of individuals succumbing to 'the enemy' of health (obesity) but rather than identifying increased individual willpower or change as the solution, medical weapons are identified as the appropriate tools to fight obesity. In Frame 3, the blame lies with discriminatory policy, practices and behaviours within the workplace and society, as well as the pathologisation of obesity by those in medical professions and health/drug industries motivated by financial gain. This frame sees the solution as policy makers, advocates and researchers legislating against and educating about weight discrimination, and debunking myths about obesity. Frame 4 places the blame for body policing on the shoulders of individuals who engage in it, and sees the solution as challenging individuals and discursive acts.

However, not all discourses are equal.

Hence, the framing of obesity by fat activists (frames 3 and 4) is not accorded the same media representation or policy consideration as medical and public health frames (frames 1, 2 and 5). Rather, in the case of obesity, it is overwhelmingly the knowledge and voice of the medical and health professions that is privileged in the mainstream media and policy documents, along with its framing of obesity as a health issue (Saguy, 2013). As an example of this, a study (Hilton, Patterson, & Teyhan, 2012) analysing the coverage of obesity in seven UK newspapers from 1996 to 2010 found that of the 2414 articles on obesity:

- the term "obesity epidemic" was used in 444 articles
- The most commonly reported problem was the risk to health
- There was a sharp spike in media coverage of obesity following the release of a World Health Organisation report that warned of the dire global health consequences of unchecked obesity rates.

Furthermore, obesity policy in Australia, Canada, the United Kingdom and the United States takes its cue from international health policy organisation the World Health Organization (WHO), of which all four countries are members. The *Global Strategy on Diet, Physical Activity and Health* (World Health Organization, 2004) is strongly framed by medical/health discourse, focusing as it does on factors for 'noncommunicable diseases' (namely diet and physical activity) and identifying overweight or obesity as an important risk for noncommunicable diseases. The strategy is also described as complementing the WHO's other nutrition-related work (World Health Organization, 2004, p. 1) and an inspection of the Strategy Reference Group membership reveals heavy representation by those with nutritional science expertise (World Health Organization, 2003, p. 5).

It is also important to note that the dominance of the medical/public health worldview is not natural or neutral (though metaphors work to help them appear that way) but the result of vested interests and political activities undertaken by the health and medical sector (organisations and individuals who have worked for decades to construct obesity as a medical and health problem).

A possible consequence of the dominance of the medical/health worldview in combination with metaphors of obesity as a war, disaster and plague is that the types of intervention and policies being considered by governments will shift from mild disincentives (such as taxes on junk food, and zoning laws that ban fast food restaurants) and towards more punitive measures (such as penalising parents for the unhealthy lifestyles of their children or treating child obesity as child abuse, or penalising obese employees by requiring them to pay higher health care premiums).

Furthermore, the metaphors that people use to understand obesity rates are strong predictors of support for public policy (Barry et al., 2009). While individuals have a certain degree of agency when it comes to which metaphors they use to understand phenomena, metaphors preferred by health professionals, media and government gain wider currency because of the status and resources of these groups.

Health professionals, media and government rely heavily on metaphors of war, disaster and plague (and may thus influence public understanding of obesity rates). But this reliance may have unintended consequences, including the stigmatisation of obesity and 'overmobilisation'—responses to health issues that compromise ethics by treating bodies as battlefields (where defeating the enemy is more important than individual wellbeing) and overspending on medical arms races (Annas, 1995).

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R. Vallis, S. Inayatullah/Futures xxx (2015) xxx-xxx

3.2. Trend 2: food insecurity

While there are many definitions of food security, the one arising from the 1996 World Food Summit is that food security is: "when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life" (Food and Agriculture Organization (FAO) of the United Nations, 2008).

As can be seen in Table 4, the same metaphors of war and disease used to talk about obesity are also used to frame the issue of hunger, with similar policy consequences. Note that in the analysis below 'hunger' or 'famine' are the terms generally used in headlines to talk about food insecurity, both because these terms are more readily understandable by the public and because of the specific work these terms do within different frames.

3.2.1. Frame 1: hunger as the enemy

In Frame 1, hunger is an enemy and policy and technology the weapons used to wage war against it. Food scarcity is variously attributed to inefficient production and limits of production growth, climate change, rapid population growth and waste along the food production and consumption chain. The most common technological and policy solutions to address these problems include productivity gains through science (genetic, drones, robots, precision farming), changes in diet (insect farming) and farming (urban, vertical) to increase sustainability, and the shift to a circular economy (the re-use of waste and by-products).

Food irradiation: an unused weapon against hunger (Libby & Black, 1978).

Detroit's secret weapon against food insecurity (Resnikoff, 2014)

Attacking the Hunger Epidemic - And Winning (Hammer, 2013)

Once more, as with the militant metaphors used to frame the issues of obesity and tuberculosis, the metaphor runs the risk of overmobilisation and, as a consequence, policy that justifies large expenditure or which infringes on liberties and stigmatises. For example, the United States Department of Agriculture officials plans to weigh children at daycare centres (as well as collect information about meals and how much physical activity children perform).

The data collection and study are mandated under section 223 of *Healthy Hunger-Free Kids Act*, passed in 2010 (United States Department of Agriculture (USDA), 2015). While the aim of the study is to get a national picture of nutrition and wellness quality in childcare settings, there is a risk that weight could become the measure of wellness, and that parents or daycare centres with underweight (or overweight) children may be stigmatised.

Likewise, Seattle has introduced an ordinance that will see those citizens who throw away food have their garbage cans marked with bright red tags—a deliberate public-shaming tactic (Fox News, 2015). Thus, the process of stigmatising those who 'collaborate' with the enemy—hunger (and its ally, waste)—has already begun.

3.2.2. Frame 2: hunger as an epidemic

In Frame 2, the metaphor of food insecurity is that of an epidemic. The metaphor is used to highlight the seriousness of the problem and support the call for urgent action. Like the use of the metaphor around the issue of obesity, there is a connection with medical discourse (the news articles below all focus on malnutrition), however, at the systemic level there is greater emphasis on health systems (rather than individuals) as the cause of the problem and as the focus of repair work. The solution is seen as policy supporting nutrition screening and counselling (by registered dietitians), awareness programs and insurance coverage for oral nutrition supplements.

Hidden hunger: America's growing malnutrition epidemic (Bush, 2015)

Malnutrition epidemic: Thousands eat so badly they're dangerously undernourished (Burne, 2009).

Malnutrition a hidden epidemic among elders (The Gerontological Society of America, 2014).

Table 4 CLA of Hunger.

FRAME	1	2	3	4
Litany level (visible problem)	Global food shortage/food crisis/food insecurity/coming famine	Malnutrition statistics	There is enough food produced for everyone yet there are millions of hungry people	Number of dead/dying in affected place
Systemic level	Climate change and population growth will cause food shortage unless production is improved and waste prevented	Health system is failing to prevent malnutrition	Problem is not shortage of food but unequal access(caused by economic and political systems)	` .
Worldview/ discourse	Scientific, technical	Medical, nutritional science, public health	Social justice, food sovereignty	Humanitarian, religious, international development
Myth/ metaphor	Hunger as the enemy level	The Hidden Hunger Epidemic	The Hunger Trap	Lightning, God's will

R. Vallis, S. Inayatullah/Futures xxx (2015) xxx-xxx

3.2.3. Frame 3: hunger as a trap

The use of the 'hunger as a trap' metaphor gets used in similar ways to the 'hunger as a disease' metaphor but attributes more blame to actors.

The key qualities of a trap are that it is man-made, designed to work in a certain way, and difficult to escape. The qualities of this metaphor are therefore used to support systemic arguments that hunger is not a natural phenomenon caused by food shortage but the outcome of systems (capitalism, colonialism) that guarantee unequal access to food, wealth and other resources. The metaphor also locates blame (and thus responsibility for fixing the problem) with those who create the trap. This is usually government but sometimes also multinational corporations—and positions the hungry as victims of the trap.

The solution implied by the metaphor is to 'dismantle' or remove the trap by changing the systems (or parts of systems) that create it. Thus, one proposed change is to ensure that governments and corporations use agricultural land to grow food for people (rather than using it to make biofuels for cars or meat livestock feed (meat being a product that the poor can't generally afford). Another proposed change is enacting policy which ensures that governments keep aid promises and invest in small farmers. Or, some propose changes in legislation that prevent companies from avoiding tax in poor countries or making business deals that prevent poor people accessing food.

The metaphor may be used to support arguments for food sovereignty, and is used to seek recognition of the fact that hunger contributes to poverty, and that governments, investors and corporations play a role in unequal access.

Hunger **trap** generation: 250,000 MORE children in poverty than when the Tories were last in power (Nelson, 2013). What Is Congress Playing At? The Shame Of America's Hunger **Trap** (McGovern, 2014). 100 Major Charities Launch Joint Campaign To Tackle Hunger **Trap** (Actionaid, 2013).

3.2.4. Frame 4: hunger as lightning

In Frame 4, the metaphor of lightning is invoked by the use of the verb 'strikes'. The work of this metaphor is to locate the blame or cause of hunger (or famine) with nature or god, thus effectively removing human action, actors, social relations and systems from the blame picture. Another consequence of conceptualising food shortage in terms of "natural forces" is that it naturalises (and thus makes invisible) the coordinated activities responsible, thus conceptually limiting the potential for intervention and change.

The use of the lightning metaphor to construct extreme hunger/famine as an act of god or nature also treats it as unpredictable and supports reactive (rather than preventative) solutions to the problem in the form of short-term donor assistance or leaving the 'affected' area. Likewise, the metaphor of lightning (and other natural disasters that strike) suggests an urgent and short-term problem rather than one that is chronic (ongoing).

The metaphor (along with the term 'famine') also focuses on geographic regions (rather than individuals within populations). This has the effect of erasing differences in access to food, implying as it does that all or most individuals within a geographic region will be similarly affected by food shortage. The term 'famine', which is defined in many different ways but generally refers to a widespread scarcity of food, is never applied to developed countries where access to food, rather than scarcity, is assumed to be the cause of hunger and assumed to affect only a minority of the population.

Famine Strikes Again in Africa. America Needs to Respond (Lambers, 2011).

Famine Strikes the Horn of Africa (Voice of America, 2011).

Somali president issues urgent appeal for aid as famine hits nation (CNN News, 2011)

3.2.5. Summary of hunger metaphors

As seen with the analysis of obesity, the problem of food shortage is constructed differently according to the metaphors and discursive frames selected to talk about it, resulting in different solutions to the problem (as it is constructed). Once again, however, not all discourses and metaphors are given equal weight in the arena of policy and funding. Thus, where frames 1, 2 and 4 are privileged, the result is policy and funding that focuses on defeating the enemy of hunger with better technology, medical intervention or aid dollars while ignoring the role of political and economic systems in creating unequal access to food.

The dominance of war metaphors may also see the types of intervention and policies being considered by governments shift from incentives to disincentives. While public shaming or stigmatisation of those who engage in poor resource or waste management may sound like an unlikely policy action, consider Seattle's existing garbage-shaming initiative and 'drought shaming' in California. In California – which is undergoing a water shortage – several shaming tactics have been proposed by the governor and his advisors. One example would see water wasters publicly shamed on highway message boards (Cruz, 2015).

4. Conclusion

Using the CLA framework, we have argued that the use of certain metaphors (in conjunction with discursive frames) construct problems differently and thus limit the range of potential solutions or policy responses.

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R. Vallis, S. Inayatullah/Futures xxx (2015) xxx-xxx

We examined numerous media headlines and other texts about food insecurity and obesity to show how the construction of these issues (including use of metaphors) shares similarities with historical constructions of the policy issues of asylum seekers. immigrants and tuberculosis.

We moved across frames – or discourses – to challenge the present as universal, as the only reference point. Subsequent research would use the alternative discourses to articulate different scenarios about possible futures. Reconstruction would naturally follow the deconstruction we have engaged in.

Through this analysis we have shown how the use of metaphors, in conjunction with discourse, may:

- naturalise and privilege worldviews and discourses (which may in turn dominate and drive funding and policy decisions)
- attribute blame and responsibility
- magnify the size of the problem and consequences
- support claims about the urgency and extent of required intervention (and who should deliver it and to whom)
- influence the identification and consideration of solutions by constructing the problem in particular ways
- intentionally or unintentionally result in stigmatisation and non-trivial discrimination (social and workplace)
- erase or highlight the role of actors, processes, social relations and systems in trends and issues.

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R. Vallis, S. Inayatullah/Futures xxx (2015) xxx-xxx

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12