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Contagious insecurity: war, SARS and global air mobility

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Neglect of the cross-cutting confluences between different domains of security can lead to insular notions of global security as well as to lost opportunities for security sensitive contributions to the adjoining issue areas. This article attempts to overview the patterns of interactions during three security scenarios of early 2003: wars, as, for example, the War against Terror and the war in Iraq; pandemics such as severe acute respiratory syndrome (SARS); and air mobility. The overview approach is meant to draw attention to the synoptic interplay between global security scenarios that go beyond the usual disciplinary and conceptual boundaries separating security studies, global health and mobility infrastructures. How does the context of war amplify other security concerns? What were the synoptic interactions within temporally situated 'bundles' of security-related concerns? How did global air mobility politics and pandemic politics construct their combined security problematiques? The main research findings point to the relatively unique yet momentary qualities of the emergent nexus of security scenarios. This sheds light on the difficulties of managing pandemic diseases as purely epidemiological processes, on the complexities of securing global air mobility networks, and on how tense situations are prone to lead to speculative projections as people's fears find different somatic, material and political manifestations. The primary material for the textual analysis is provided by World Health Organization's SARS chronology.

Keywords: pandemics; SARS; air mobility; war; global security

Introduction

The spring of 2003 saw an affective climate pregnant with much political speculation and building of worst case scenarios. Much of this was based more on imagination than facts as in the case of the Iraqi chemical and biological weapons of mass destruction (WMDs). Some were more factual as in the case of the severe acute respiratory syndrome (SARS), although in hindsight, even that was more of a scare than an actual killer disease. It is claimed in this article that these two scenarios were partly interlinked. In the charged atmosphere of the overall geopolitical flux, SARS arguably reflected the prevailing anxieties over the sustainability of the world order. With the US anthrax attacks still fresh in people's minds, there was much talk about bio-terror, which recycled the pandemic 'coming plague' scenarios that had become so popular in the 1990s. The hyperbole of pandemic imagery was notably built into the case made against Iraq when it was accused of developing military uses of epidemic diseases. In addition, the overall fears, worries and suspicions gave specific nuances to and strengthened the alternative articulations of air mobility. The global hub-and-spoke aviopolis was increasingly seen not only as a signifier of global connectedness, but also as a register of immense vulnerability. The three security scenarios became entangled in a way that defies the seeming conceptual distance between them and highlights how any temporal context produces nexuses and bundles of security. This article

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overviews these momentary patterns and the more lasting cross-cutting bridges between the scenarios.

The claim that global aero-mobility's architecture or pandemic disease's directionality are connected with that of global power and security has received relatively scant research attention in international relations (Salter 2008, p. 245, Aaltola 2011, pp. 1–10). The relative absence of thorough accounting for the interaction between different security scenarios may easily lead, on the one hand, to insular notions of global security and, on the other hand, to lost opportunities for politically sensitive contributions to adjoining issue areas. Synoptic overviews can alleviate the tendency to regard military security in an insular way. Going beyond insularity, the aim here is to discern how other concurrent phenomena are amplified by the overall war context. Overviews are commonly crafted for two general purposes. First, overviews can assuage scholarly perplexity through initial mapping of tacit and in-tacit knowledge so as to better allow for a subsequent, more nuanced explanation and model building. However, this two step approach is best suited to security studies, where the phenomenon is a single self-contained end-product in itself – that is, it does not consist of an open-ended bundle of multifarious and irreducible processes. Second, it is possible to overview different overlapping scenarios so as to discover synoptic variety and see how the combinatorial possibilities are actualized (Cioffi 2010, p. 301). This second type of synoptic overview answers different types of puzzling questions than the first alternative. Furthermore, it also brings the types of scholarly curiosity itself under a critical gaze since overviews of synoptic interrelationships tend to result in questions such as why we see only some bundles of interrelationships as puzzling in the first place and what is the relationship between 'the reasons for finding something scholarly interesting' and 'the knowledge being produced' (Wittgenstein 1968, §122, Cioffi 2010, p. 293). All temporal contexts have synoptic potentials, which need to be approached from diverse angles to build a fuller understanding of how the actual, potential and circumstantial are interrelated (Wittgenstein 1980, p. 37). The overview approach utilized here suggests a discovery process that is based on an examination of hidden combinatorial possibilities. This discovery is done by permuting the scenarios, their historical trajectories and past cross-cutting confluences (e.g. Wardrip 1996, p. 366).

Thus, the aim of this article is to bring into clearer view the various synoptic possibilities inherent in the different contemporary global security discourses. More specifically, I will survey the nexus between major wars, air mobility and pandemic diseases. The aim is to see how they (re)combined in the heated environment of the spring of 2003, when the build-up to the Iraq War, the War against Terror, SARS and global air travel tangled with each other. This examination seeks to evaluate interactions and confluences in the light of three main research questions:

- (1) What are the synoptic possibilities within temporally situated 'bundles' of security-related concerns?
- (2) How does war as a major context tend to amplify other security concerns, especially those connected with epidemic diseases?
- (3) How do the scenarios of global air mobility and pandemic diseases construct their combined security problematiques – that is, how do planes become 'diseasing' and pandemics acquire air mobility?

Any attempt to overview the security confluences of 2003 is bound to collide with the sheer complexity and scale of the events. Such a detailed historiographical analysis needs to be clarified and complemented by a few cross-cutting themes. In this article, it is argued that the regressive trajectories of war and pandemic shared the same wide-spread cultural heuristics – contagious spread and spiralling form. These, in turn, interacted readily with the main arteries of global flows – the air mobility system.

War as a vortex and amplifier

Major wars have clear geographical scope, yet they also have much reach in terms of cognitive associations and many metaphors of enmity are used in the construction of wars. It seems evident that the sequence, tempo and intensity of military actions might bundle distinct events into momentary consequential wholes. For example, the Afghan War, which started in October 2001, happened in close sequence after the 11 September 2001 terrorist attacks in New York City (9/11). The resulting intense tempo of events leading to the Iraq War in the spring of 2003 packaged that war in the overall context of the War against Terror, regardless of the factual connections. The lessons learnt from Iraq fed back to the War against Terror and to Afghanistan. This power to recontextualize and draw together bundles of other issues and events is a noteworthy characteristic of major wars.

The wider reaches of war have been examined from various angles. For example, Johnson (2000) referred to the dynamic of 'blowback' in seeing how the US' external actions can lead to violence directed back towards it. Some researchers have gone beyond the usual 'violence begets violence' models to show how military actions can amplify seemingly unrelated types of violence. Hamamoto's (2002) study on the link between foreign wars and mass murders and serial killings in the USA reveals the wider complexities of the 'reach of war' argument. That said, it must be noted that these discernable connections do not need to be evidence based for them to exert a general impact. The historical and speculative sensitivities related to the war context can affect the specific fields of expectation. This may concretize these public expectations – leading to self-fulfilling processes – and hyperbolize even the smallest expectation-according signs into noteworthy events.

The overview approach used in this article starts by mapping the general patterns and trajectories associated with wars and conflicts. The public cognitions related to the war context often perceive the international setting as inherently unsteady, which may erupt in sudden vortexes of violence – in spiralling circles of inflicting and suffering violence. In research literature, various signifiers of cycles and cyclicity are often used to describe the trajectories of political violence and war (e.g. Goldstein 1985, Sayrs 1993, Minow 2002). Further illustrative cases of this construction of international crises and conflicts are provided by the common depictions of them as downward spiralling flows (e.g. Herrmann and Fischerkeller 1995). They are often conceptualized as dynamic circular and engulfing movements. For example, international crises are often heuristically pictured as reciprocal self-feeding exchanges – a movement composed of responses and counter-responses. Leng (1993, p. 74) used the embodied analogy of a 'school yard fight' to characterize the pattern of symmetrically escalating hostility. There are recurring references to downward spirals that grip actors, spinning them quicker and quicker, and sucking new players into the overall vortex. This deeply ingrained cognitive construct portrays the course of events defined by a downward momentum that keeps increasing and a spiral that keeps reinforcing itself, tightening right into the deep of an abyss of violence (Leng 2000, p. 268). This template is old and well ingrained. Thucydides' *History of the Peloponnesian War* regards the war as 'the vastest movement in human history', one violent grand movement or *kinesis magiste* in Greek (Monoson and Loriaux 1998, p. 291). Thucydides felt that the deepening and widening vortex of macro-level war induced pulses and co-currents. These emerging sub-currents occurred in the vicinity of the war's rhythmic expression of regressive energy. The increasingly violent circular motions meant that intervals in extreme violence became progressively shorter: it kept coming back, cutting across and within political bodies in increasingly intense spirals, circling round and back, again and again. The drama that Thucydides recounted spread from the inter-poleis level to local mass slaughters and notably to a sub-current of war, the Plague of Athens (Longrigg 1992, p. 27, Craik 2001, p. 102).

The cross-cutting heuristic of spiralling conflict has an important further modality that ties it closer to the scenarios covered in this article – that is, war, SARS and air mobility. Besides being circulatory in nature, violence is often seen as also being contagious. For example, the contagion dynamic is often used in making sense of how things get out of control and how events accelerate the associated political disorder (e.g. Koslowski and Kratocwil 1994, pp. 215, 247). The contagion kinaesthetics seems central to the modern understanding of negative political processes and flows. Broadly speaking, the term, ‘contagion’, is often used in reference to the idea that political violence – as, for example, external wars or internal conflicts – in one region or state influences the possibility of violence in another region or state (e.g. Li and Thompson 1975, p. 63). Political violence and its sub-categories, such as war and terrorism, are often treated in terms of a disease (e.g. Spilerman 1970, Most and Starr 1980, Hamilton and Hamilton 1983, p. 41, Zartman 1995, p. 9). Thus, contagion refers to a much used template for making sense of sudden regressive processes in politics. On the other hand, the template sometimes goes even further than the process of contagion implies. Disease metaphors are used to understand enemy images and to construct threats. Enemies and the perceived ‘evils’ of the situation are often approached as if they were horrid diseases (Tuan 1979, p. 87, Sontag 1988, p. 63).

One further bridgehead into this study is the belief that wars are disease amplifiers. This often repeated reach of war has deep historical roots and has recently acquired additional strength in the context of the pandemic scares and biological weapons threats (Longrigg 1992, p. 27, Price-Smith 2009, pp. 1–10). The aforementioned tendencies lend some substance to the cultural depth of this conceptualization. The hypothesis is seemingly straightforward: wars spread diseases because they lead to large-scale troop movements, to displacement of people, and to a dramatic lowering of health standards. However, the association between wars and diseases is ancient and its metaphorical bridges deep. These cognitive constructions point out the possibility that the advent of major war increases the perceptibility of the diseases signifiers even in the absence of actual physical outbreaks. It may be suggested that the SARS outbreak encouraged the construction of the much feared pandemic disease expected in the context of political turbulence. The following exchange from a White House Press Briefing (19 May 2003) illustrates the multiple uses of disease metaphors in the War against Terror:

Question: She [President Arroyo of Philippines] said, terrorism is like SARS, it’s almost like SARS. Is it spreading because we still have yet to find the core, Osama bin Laden?

Answer: That’s the nature of terrorism. It’s the nature of hatred. Hatred doesn’t exist only because of one person; hatred exists. In this case, it’s the most virulent hatred because it’s carried out in the form of murder – murder against Americans; murder against Westerners.

The build-up to the Iraq War arguably contained all of these cross-cutting tendencies: the situation was partly conceived in terms of spiralling hostility, there was much fear of the contagion potential of the situation, and the metaphors of contagion and disease were used to construct threats. For example, Secretary of State Colin Powell gave a hyped-up speech to the United Nations Security Council on 5 February 2003. The aim of the speech was to convince and persuade: ‘My colleagues, every statement I make today is backed up by sources, solid sources. These are not assertions. What we are giving you are facts and conclusions based on solid intelligence’. Powell states that Saddam’s ‘inhumanity’ is limitless. As a case in point, he mentions cruel experiments with prisoners:

We also have sources who tell us that since the 1980s, Saddam’s regime has been experimenting on human beings to perfect its biological or chemical weapons ... An eyewitness saw prisoners tied down to beds, experiments conducted on them, blood oozing around the victims’ mouths, and autopsies performed to confirm the effects on the prisoners.

Powell concretizes the WMD threat, especially through their biological disease-related dimension, arguably to make the threat easier to imagine:

Saddam Hussein has investigated dozens of biological agents causing diseases such as gas-gangrene, plague, typhus, tetanus, cholera, camelpox, and hemorrhagic fever. And he also has the wherewithal to develop smallpox.¹

The point was that Saddam, as an agent of evil inhumanity, had turned plagues into weapons:

There can be no doubt that Saddam Hussein has biological weapons and the capability to rapidly produce more, many more. And he has the ability to dispense these lethal poisons and diseases in ways that can cause massive death and destruction . . . Less than a teaspoon of dry anthrax, a little bit – about this amount. This is just about the amount of a teaspoon. Less than a teaspoon full of dry anthrax in an envelope shut down the United States Senate in the fall of 2001. This forced several hundred people to undergo emergency medical treatment and killed two postal workers just from an amount, just about this quantity that was inside of an envelope.

The US use of contamination and contagion imageries evokes the necessity of decontamination and containment. Decontamination seems logical when the supposed forces of evil are framed in terms of a contagious disease. The military action turns into a practicable and reasonable yet existential exercise – what a doctor does in treating a patient's cancerous growth.

Furthermore, the US documents on SARS often highlighted the close connection between naturally occurring and intentionally caused outbreaks of disease. It was perceived that the measures aimed against naturally occurring outbreaks offered a way to combat possible intentional outbreaks. The preparedness over naturally occurring diseases was seen as a testing ground for developing preparedness and resilience over possible biological warfare. The combined dynamics was captured in the term, 'health security'.² The documents conceive of new health threats stemming from (re)emerging diseases and biological warfare agents: 'Given American leadership in the biomedical field and Singapore's advanced research facilities, President Bush and Prime Minister Goh agreed that the two countries should explore prospects for collaborative efforts [. . . and] to begin consultations on possible joint projects'.³ From the US perspective, the SARS-related outlook was part of a larger vision to the world: the presidential directive, 'Biodefense for the 21st Century',

provides a comprehensive framework for our nation's biodefense. [It] builds on past accomplishments, specifies roles and responsibilities, and integrates the programs and efforts of various communities – national security, medical, public health, intelligence, diplomatic, agricultural and law enforcement – into a sustained and focused national effort against biological weapons threats.⁴

The integrated approach to meet the threats of terrorism subsumed much of the defences against naturally occurring diseases. The probable consequence was that the occurrence of a natural epidemic disease, SARS, heightened the security-related framing of it. At the same time, SARS also amplified the believability of the underlying cause for the Iraq War – its WMDs.

The SARS chronology of spring 2003

In popular imagery, the SARS scare of 2003 was often linked with the global age of connectedness and the increasingly tightly knit fabric of interdependency. Health Canada (2003, p. 1) noted this association: 'Old diseases usually spread slowly . . . SARS, on the other hand, moved at the speed of a jet airplane. Within days of its arrival in Hong Kong, it had circled the globe'. Crawford (2007, p. 29) uses the hyperbolic antagonistic term, 'super-spreader', for a figure that, in global health language, is referred to as an 'index case': '... the virus spread round the globe, aided by super-spreaders (like the doctor at the Metropole Hotel in Hong Kong) and fast international air travel'. Similarly, Nouri and Chyba (2008, p. 20.8) state that '... during the early stages of the SARS pandemic, a single patient, the "super-spreader",

infected every one of 50 health workers who treated him'. The super-spreader figure appeared in the popular accounts of SARS. *The Sunday Telegraph*, for example, reported on 23 March 2003 the following dramatized scene:

As he shuffled through the lobby of the Hotel Metropole, the elderly professor was feeling feverish and faint. At the lift, he steadied himself for a moment in the open doorway before his body convulsed in a series of wracking coughs that sprayed fine droplets of saliva onto the walls and the people waiting inside.

Super-spreader is a term with a loaded cultural history that connects it with the figure of 'Patient Zero' in the HIV and AIDS narratives. During the late 1980s, there was much speculation about the original Patient Zero, Gaetan Dugas, who, through his work as an air steward, was able to fly all over the world and spread HIV to others. Varying numbers of HIV infections have been linked to him: '... Dugas was a hub in the network of sexual contacts' (Mitchell 2009, p. 50). Crawford (2007, p. 20) uses another air mobility trope, 'city hopping', to drive home the point about the avian flu-related dangers. Evidently, the figure of a super-spreader carries with it a multidimensional understanding of the failure of pandemic containment. The term, super-spreader, ceases to be a mere technical epidemiological term. It turns into a signifier that blends together into one figure multiple engrossing images and then projects them into the context of major metropolitan hotels and into the global aviopolis. As a construct, it enables the underlying invisible world of viruses to be made visible and culturally comprehensible through a reframing of air mobility, which has been commonly articulated in a far more progressive light.⁵

However, the specifics of securing air traffic flows have been linked to other aspects of global security as one of the most visible articulations of a secured global order (Aaltola 2005, Adey *et al.* 2007, Urry 2009). Urry (2009, p. 34) makes the case that aero-mobility is based on 'a dynamic and flexible systemic structure articulated horizontally across the globe'. This dynamic and flexible framework is in accordance with the contours of the existing assemblages of hegemonic governance and provides a major expression of what is meant by global interdependency (Agamben 1998, p. 123, Dillon and Reid 2000, p. 117, Hardt and Negri 2001, pp. 13–14, Aaltola 2005, p. 268). From this bridgehead, the hub-and-spoke air mobility has become an increasingly important register of security and vulnerability (e.g. Crang 2002, p. 571, Dodge and Kitchin 2004, p. 195). It is notable that the post-9/11 air mobility scenario includes a marked dystopian element (e.g. Knox *et al.* 2007, p. 267). Dystopian declinism knits the scenarios of air mobility closely together with geopolitical and public health security scenarios. During the spring of 2003, the idioms of terrorist, evil dictator, and super-spreader led to circulating suspicions, flight disruptions, grounded flights, health screening and quarantined passengers. Without taking into account this modality of global power, the understanding of wars and SARS would be incomplete.

Next, I will review a 'comprehensive chronology of SARS-related events' as published in the World Health Organization (WHO 2006) publication, *SARS – How a Global Epidemic Was Stopped*. I will examine how the chronology frames international air travel in the context of SARS through various tropes and figures. The WHO report notes 21 February 2003 as the day on which SARS went international:

Index case of the Metropole Hotel outbreak arrives from Guangdong; international spread of virus begins: Professor LJJ, a 64-year-old physician from Guangzhou, arrives ... to attend a wedding. He developed flu-like symptoms on 15 February, having been infected in the hospital where he worked ... At least 16 other guests and one visitor are infected during his one-night stay in room 911 of the Metropole Hotel.

This item in the chronology states the profession – a professor and physician – of the index case. The chronology does not explicitly use the term, 'super-spreader'. Rather, it refers to

‘super-spreading events’ and ‘index cases’. The context is an international metropolitan hotel in Hong Kong. This is significant and the mentioning of the index case’s profession is used to imply two things. First, the doctor was probably infected in Guangdong through his work as a medical doctor. Second, it also brings the disease to a new level when, instead of an average local person, a person with membership of the global elite catches the disease.

Since the hotel was an international one, there is a sense that any of the 16 infected people could also turn into super-spreaders. The chronology accounts for one further place where the index case infected more people before dying:

Professor LJL is admitted to the intensive care unit of the Kwong Wah Hospital for respiratory failure. Besides the hotel guests, three members of his family ... and one nurse at the hospital are infected. Professor LJL will die on 4 March.

The chronology can be interpreted to construct the doctor as a super-spreader and both the hotel and the hospital as possible disease hubs. The next item in the chronology that indicates further international spread is dated 26 February 2003:

Hanoi index case is hospitalized: Mr JC, a 48-year-old merchandise manager from New York, is admitted to the Hanoi-French Hospital. He arrived in Viet Nam on 23 February after travelling to China and Hong Kong ... The WHO office in Viet Nam will be notified of the case the next morning, and its advice sought.

As in the case of most of the infected persons, the chronology points out the profession of the index case. The fact is clearly meant to be relevant for imagining how he might have been infected and gauging the potential for further spread. The infection of an international businessman implies a high possibility of many contacts. It is also a signifier of frequent international travel, a worrying sign as it is used in the chronology.

The next item on the chronological list reports the spread of SARS to Singapore:

Singapore index case is hospitalized: Ms EM is admitted to Tan Tock Seng Hospital with pneumonia. She has been unwell since returning from a shopping trip to Hong Kong on 25 February. The 22-year-old, who stayed in room 938 at the Metropole Hotel ... will pass on the virus to 22 close contacts.

This index case, infected by an index case, is identified, not through her profession, but through her consumption-related activity. She is a young tourist who has been on an international shopping trip. On 2 March 2003, the chronology notes the spread of SARS from a province to the capital of China:

First Beijing index case is hospitalized: A 27-year-old businesswoman from Shanxi Province is admitted to a military hospital in Beijing, and later transferred to an infectious-disease hospital ... She developed symptoms on 22 February in Guangdong and sought medical attention in Shanxi, passing on the virus to two doctors and a nurse there, as well as to 10 health workers at the two Beijing hospitals, and to eight friends and members of her family, including her parents, both of whom will die from SARS.

Again, this retrospective chronology indicates that the fact of the index case being a businesswoman is seen as relevant in the further spread of SARS. On the same day, a further worrying development in Hong Kong is noted:

A 72-year-old Canadian tourist is admitted to St Paul’s Hospital. He was infected during his stay at the Metropole Hotel. He will pass on the virus to three health workers, five visitors, and one patient at St Paul’s. Two family contacts of these cases will also be infected.

This case is identified through the Canadian’s status as a tourist. Being a tourist is regarded as a significant status for it implies possibilities of an international and, in his case and in the case of the New York businessman, intercontinental pattern of spread.

On 3 March 2003, the chronology mentions a clearly protagonist event:

Dr Urbani examines Hanoi index case: In Hanoi, WHO's communicable disease expert in Viet Nam, Dr Carlo Urbani, examines Mr JC, the American businessman who was admitted to the Hanoi-French Hospital on 26 February with a severe form of pneumonia. Dr Urbani sends a report to WHO's Regional Office, emphasizes the need for strict infection controls, and arranges for Mr JC's serum and throat swabs to be sent to laboratories in Tokyo, Atlanta, and Hanoi.

The chronology makes an exception here in identifying an eventual victim, Dr Urbani, by his full name. His activity is seen in an inherently positive light in the otherwise unemotional disease chronology. He is not identified as a potential spreader, but as a disease warrior whose vigilance is seen as among the most important turning points in the SARS trajectory. Dr Urbani is turned into the hardworking exemplary hero of the chronology. Because of this position, it may be argued that his probable role in passing on the disease is not considered worth mentioning. Actually, his possible position as a super-spreader is downplayed by later mentioning his hospitalization in Hong Kong, when he alerted others of his condition and kept his distance from other people at the Hong Kong airport:

Dr Urbani leaves for Bangkok, where he is to give a presentation at a meeting on tropical diseases the next day. He has a fever and is immediately isolated and hospitalized on arrival. He infects no other passengers on his flight or health workers. (11 March 2003)

Dr Urbani is turned into a model of how to act in a pandemic emergency. He is also used to embody the effectiveness and vigilance of the organization he works for, WHO.

However, the super-spreader types get additional substance on 4 March 2003 in the form of a further alarming case in Hong Kong:

Index case of outbreak at Prince of Wales Hospital is hospitalized: A 26-year-old airport worker, Mr CT, is admitted to ward 8A of Prince of Wales Hospital with pneumonia . . . His fever and chest condition gradually improves after admission and his case is never categorized as a severe community-acquired pneumonia. Hence, the case is not reported and infection-control measures are not applied. Mr CT was infected when visiting the Metropole Hotel. He will pass on the virus to 143 Hong Kong residents . . .

There are several noteworthy aspects in this case. First, the profession of this nodal index case is that of an airport worker, implying the high possibility of him being in contact with flyers from different global locations. Second, his account also highlights the importance of vigilance and care in diagnosing the disease for containment failures have disastrous consequences.

On 5 March 2003, the chronology recounts the intercontinental jump of SARS to Canada:

Toronto index case dies: Ms KSC, 78 years old, dies in her Toronto, Ontario, home. The death certificate attributes her death to heart attack. In fact, she died from SARS acquired at the Metropole Hotel in Hong Kong. Before dying, she has passed the virus on to four members of her extended family, who will then spark the Toronto outbreak.

The chronology reports misdiagnosis and recounts its negative consequences. The chronology also implies a failure in the containment and follow-up procedures since the index case's stay at the Hotel Metropole should have been suspected by then. This stands in contrast with the next item in the chronology:

Mr JC, the Hanoi index case who has been medically evacuated, arrives at the Princess Margaret Hospital, where he will die on 13 March. The WHO Regional Office informs Hong Kong and Singapore officials about his transfer. Singapore is informed because the medical evacuation team is from Singapore. Because of strict infection controls, no health worker in the Princess Margaret Hospital is infected by Mr JC.

The vigilance and clear communication is pointed out. This time, proper procedures seem to have been followed. The same sense that progress is being made in getting the situation under control is pointed out in the 7 March 2003 item on the developing situation in Vietnam:

The situation is rapidly escalating, with 12 Hanoi-French Hospital staff now hospitalized and more falling ill ... The WHO Representative writes to the Ministry of Health and Hanoi-French Hospital, urging them to control the outbreak by creating a task force, strengthening infection controls, and closing the hospital to other patients. WHO sends out an alert about the Hanoi outbreak to the Global Outbreak Alert and Response Network (GOARN) and requests assistance.

Although there were further alarming cases, this chronology details how WHO got its global machinery fully working. However, one should note that all this activity takes place a full month after the first accounts of the disease in Hong Kong and months after the first outbreak occurred in China.

The danger is not yet over. The chronology next accounts for further cases in Toronto:

Mr TCK, the 44-year-old son of Ms KSC ... arrives at the emergency department of Scarborough Hospital, Grace division, in Toronto ... While waiting 18 to 20 hours to be admitted, he passes on the virus to three other people in the emergency department.

It seems from this account that the authorities in Toronto were not managing the disease effectively. Contacts had apparently not been followed and isolated in a careful manner. Furthermore, it is notable that the account mentions Mr TCK's long wait in the emergency room. The impression of laxness is reinforced. On the same day, the chronology lists how 'Mr CKL, a 55-year-old former guest at the Metropole Hotel in Hong Kong, is admitted to Vancouver General Hospital'. The health authorities in Vancouver are seen as more vigilant than those in Toronto: 'Because of his travel history, infection-control procedures are implemented. The virus does not spread in Vancouver'. The identification of this index case with his 'travel history' allows the authorities to act. It should be noted how history of travel turns into a way of diagnosing danger.

By 12 March 2003, WHO issues its first global alert on SARS. At this point, the chronology turns increasingly into an account of the different health authorities' actions and effective collaborations. Advance against the spread of the disease is being made. The effectiveness of containment actions is clearly indicated by the item on 15 March 2003:

In Frankfurt, German authorities await the arrival of flight SQ25, which stops in transit from New York to Singapore; full protection against infection is ready. As soon as the plane lands they quarantine it and remove a 32-year-old physician who treated the two cases in Singapore's Tan Tock Seng Hospital at the start of the month, and developed symptoms while attending a medical conference in New York. Before he boards the plane home, he phones a colleague in Singapore saying that he is unwell and returning to Singapore. The colleague advises the Singapore authorities, who in turn advise the German authorities through WHO. As they thought, the physician has SARS. All the passengers and crew are followed up for signs of infection. The physician passes on the virus to his wife and mother-in-law, who were travelling with him, and to one crewmember. All recover.

Similar to Dr Urbani, this physician was also on his way to a medical conference. Despite this pattern, the chronology does not frame such conferences as possible hubs even though they are frequented by internationally travelling possible carriers. However, the sense of the doctor's vast global connections is highlighted. He was clearly a potential index case. The story itself is a prototypical stock narrative of a pandemic disease scare: a person with access to the international elite's social gathering places and to global air travel turns into an embodiment of danger.

On 15 March 2003, according to the chronology, WHO names 'the fatal illness', declares a worldwide health threat, and issues an emergency travel advisory for travellers and airlines 'to be aware of signs and symptoms'. This travel advisory further heightens the association of SARS with global air travel networks. The naming of the disease in conjunction with the travel advisory can be interpreted as an attempt to fight the mystery and speculation surrounding the disease. By giving it a name, it was turned into a matter of scientific knowledge and its handling was associated with efficient health expertise. The importance of the travel advisory is made even more

tangible as the chronology account of the same day notes a significant case of in-flight transmission of SARS:

Widespread transmission occurs on flight CA112: Flight CA112 leaves Hong Kong for Beijing. On the flight is 72-year-old Mr LSK, who is already very sick from SARS ... At least 22 of the 119 passengers and two of the eight crewmembers on that flight will develop SARS.

Mr LSK was a significant super-spreader as he managed to be the source of two waves of spread. This event further hyperbolized air travel's inherent dangers. However, on 17 March 2003, the chronology mentions how WHO takes a stance against strict travel restrictions. It states that such restriction of travel and trade are unjustified. WHO clearly struggles to find a balance between containment measures and the potential drastic consequences of such measures.

Overall, WHO's SARS chronology can be said to constitute a rather typical progressive modernist health narrative. The international and local health authorities – even the Chinese ones after their initial attempts to cover up – were portrayed as gradually taking a leadership role as the situation became clearer. The chronology makes the point that the spread of SARS was eventually brought to a halt by diligent adherence to traditional methods, which included surveillance, education of the susceptible and the general public, and simple isolation procedures (e.g. Benini and Bradford 1995). Curiously enough, the most antagonist figures, the 'index cases' or 'spreaders', were associated with frequent international travel: international businesspersons, frequent travellers and shoppers and tourists, who came to be carriers of the disease. Often, in the travelogues of international shock, these figures' adventures come to define the resilience and preparedness of the global community. These figures are extreme road warriors, the diehard professional citizens of global connectedness. However, in the SARS travelogues, these figures turned into potential super-spreaders. The world is worryingly turned upside down as the range of embodied danger starts to include tourists and businesspeople, besides terrorists.

SARS blended with the tense political processes of its day and acquired modalities that seemed to exemplify alarm over the 'health' of the hub-and-spoke skeleton of globality. Disease-related dramas often picture things in a way that is culturally significant: What are the prominent ways of portraying authority and those who are exceptionally deviant? Who are the villains and who are the heroes? These plays put the relevant actors in their respective, but interactive, positions and give them roles and backgrounds. The SARS play's 'vigilant' national and international actors, such as the US Centers for Disease Control and Prevention and WHO, got their share of authority and legitimacy, while those authorities – most prominently, the Chinese – that were somehow connected with the origin or further spread of the disease were portrayed as illegitimate. For example, the vigilance of the American President in disease control was prominently highlighted in US official press releases:

President Bush is very aware, acutely aware, of the situation of SARS around the world. He pays very close attention to this, has frequent briefings on it, and has particularly been interested in making sure, as you've just heard, that the finest resources of this country – our research establishment, the CDC, NIH and other of our universities and the resources that we have in this country – are effectively and immediately and appropriately mobilized to fight this epidemic.⁶

Besides vigilance, the SARS scenarios offered different actors opportunities to demonstrate diligent adherence to the practices of containment and their high degree of expertise. Such rule ascertaining and according actions can be instrumental in conveying the health of the underlying political order and reassuring the public against the actual realization of the worst case scenarios. At the end when the dust settled down, the SARS emergency allowed for displays of new containment oriented practices and representations of more resilient global travel and health systems. In several important ways, the pattern of 'hub-and-spoke' and the figure of 'frequent travel' became signifiers of a possible horrible failure in the containment drama. They

seemed to defy the usual notions of protective barriers and cordons sanitaires. The containment measures tailored to air traffic seemed inadequate. For example, the screening measures, although widely used and highly publicized, proved to be insufficient. WHO recommended that travellers be screened at airports for symptoms and signs of SARS, such as sneezing and fever: 'In spite of intensive screening, no SARS cases were detected by the border-authorities' (St John *et al.* 2005, p. 6). There was a sense of helplessness as the severing of connections did not seem to be an attractive option since air transportation can be seen as the *modus operandi* of the global order. However, the pandemic scare led to the cutting down of flights and, more importantly, to a decrease in individuals' desire to fly, if not trying to flee infected areas (Caballero 2005, p. 483). Although the checks and screening created a particular sentiment of suspicion and, perhaps, counter-intuitively, an air of security, at least, something was being done.

Mobility, power and SARS

The chronology associates SARS with the global hub-and-spoke network of air transportation. Furthermore, this link with SARS is commonly made in research literature, too (e.g. Bowen and Laroe 2006, p. 130; Thomas 2006, p. 918). Posner (2004, p. 21), among many others, points out this unintended consequence of modern technology: 'Modern transportation, especially by air, facilitates the rapid spread of new diseases'. Extensive studies have repeatedly pointed out how the hub-and-spoke directionality of global travel links with the pattern of spread of influenza pandemics (e.g. Naylor 2003, Ali and Keil 2006). Global air travel is based on a system of flows that increasingly interconnect the global metropolises – the hubs – to the spokes of the many global reaches. These differential flows show that global air connectedness is not homogenous and evenly distributed throughout the world. This heterogeneity creates opportunities for disease pathogens, which favour spreading through the hubs more than reaching all the spokes (e.g. Hufnagel *et al.* 2004, Guimera *et al.* 2005). Whereas some places are more likely to become conducive to a pandemic disease, there are some travellers who are more exposed as well as more likely to pass the disease on to others. Hollingsworth *et al.* (2007, p. 1288) stress that different travel profiles have differential effects on the spread of pandemic diseases. Especially conducive to disease spread are the so-called frequent fliers, such as the many readers of this journal. These diseasing tendencies are among the many factors that gave SARS its avian modality and stressed the need to secure and contain global air traffic flows.

Power and mobility are highly interchangeable terms in the canon of Western modernity. The intensities of air mobility can be seen as registers of this relation (Lawrence 2004, p. 230). Daileida (2008, p. 225) points out the exceptionality of air travel vis-à-vis the emergent, global notions of the 'final' frontier. The horizon was not so much a geographical barrier, but a function of making power as movable as possible and, in practice, engineering various technologies of mobility to solve the obstacles for the emergence of a truly mobile form of hegemonic power. This logic of Western mobile power led to the establishment of relatively de-territorial, decentralized and networked hegemonic structures (Hardt and Negri 2001, pp. xi–xiii, 160). The emergent power-political context consists of dynamic flows in which even the nodal points are flexible and may move – for example, air carrier battle group. This framing of air mobility is helpful in discerning the wider power-related entanglements of SARS and in contextualizing them both in the larger context of geopolitical flux.

As people fly, power is on the move and can be seen as finding its expressive grammar in the regular tempos of the mobile flows of people and goods (Aaltola 2005). The humming regularity of the national, regional and global aero-mobility systems is often used to constitute and signify the power of the respective 'movers' in global politics. The opposite is equally expressive: the regular disturbances – that is, cancelled, late and delayed flights – in the hub-and-spoke

dynamics easily translate into imageries of decreasing or failing power. In this way, the steady flows act as registers of the status and health of the present world order. This aspect of mobile power is vital when one wants to shed light on how and why aero-mobility dynamics is so entangled with the trajectories of power-politics. From this perspective, SARS' expressive characteristics had much to do with its actual and perceived ability to disrupt the air flows of people and goods and, thereby, interrupt the power anchored in regular and secured global flows. Modern pandemic diseases and, more often, their scares readily interfere with the power and mobility nexus and, thus, gain an alarming characteristic. They can potentially change the relative power status of various places and people. During SARS, the status of the internal air mobility system was under intense scrutiny as people saw it as a sign of the devastation that the disease could bring with it. On the one hand, there were fears that air travel would collapse, leading to regression of the global order so heavily based on it. Thus, apart from war, it seems that global air mobility is increasingly viewed as a disease amplifier because it too can move a vast number of people.

If nothing else, 'hub-and-spoke' is an abstract designation of a multifaceted embodied transportation experience. The tight conceptual bridge between hegemonic governance structures and hub-and-spoke political architecture is often made in research literature (Motryl 1999, Smith 2005, Kelly 2007, Hafner-Burton *et al.* 2009). The best known example of the hub-and-spoke as a political model involves the US imagery of the Pacific security system after World War II. The model became popularly known in the 1980s as the hub-and-spoke alliance structure. It meant that the USA (the hub) maintained a system of bilateral security arrangements with individual Pacific Rim states (the spokes) without a strong multilateral regime (Baker 1991, p. 92, Pyle 2007, p. 225). Similar to a system of airplane routing, all the arrangements were supposed to converge in a US 'hub' (Ikenberry 2009, p. 71). From an embodied perspective, one important reason for the rise of the hub-and-spoke as an international relations cultural model was that those innovating and experimenting with extensive notions such as 'the Pacific security architecture' were among the foremost frequent fliers. Experts, university professors, decision makers and politicians were all among the global elite who were able to live and prosper through the existence of the hub-and-spoke based air mobility dynamics. For them, the system's physicality was in tacit embodied knowledge. It may have seemed to reveal something worthy and significant with a single relatively self-evident schematic. The sentiments of air mobility may be seen as ways of embodying global order based largely on air mobility flows. This power-related modality is especially vital for getting a fuller grip on how it is used to symbolize the architectures of global power.

Moving beyond the commonplace abstract models of security studies, airports and their networks may be seen as kinaesthetic, mobile contexts. Knox *et al.* (2007, p. 265) call air mobility systems 'spaces of flows' that emphasize temporal qualities such as process, speed, improvisation and flexibility over the more spatial notions of space and networks. Castells (1996, p. 412) defined flow as the 'purposeful, repetitive, programmable, sequence of exchange and interaction between physically disjointed positions held by social actors'. The air mobility flows contain step-by-step and stop-and-go types of patterns. While the SARS epidemic was happening, air movements gained a more pandemic pattern as people were stopped to be screened for fever, containment measures were established, flights were discontinued and people were quarantined in their hotels. This pandemic grammar was further highlighted by the fear of flying and the fear felt over those who were flying and, thus, possibly spreading the disease. On the other hand, all of this was taking place under the overall context of a major scale war. The War against Terror had already led to a cross-cutting fear of flying. The US case for the Iraq War had used the signifier of lethal epidemic diseases in the context of political threats. These worries may have spilled over to the public alarm over what was taking place under the SARS conditions.

Air mobility is said to be in a constant reactive mode of experiencing different types of 'shocks'. This state has been referred to as 'constant shock syndrome'. Besides pandemic diseases, airlines are vulnerable to world economic (e.g. the 2008 recession) and geopolitical events (e.g. 9/11) as well as to natural catastrophes (e.g. the Iceland volcanic ash cloud episodes) and accidents (e.g. the 2010 crash of the plane carrying the Polish political elite). It should be noted that this shock-proneness turns air mobility into one of the more important gauges of things that are 'big' and 'shocking'. The SARS scare got additional hyperbolic value because it caused a major jolt to international air travel. Its value as something major and potentially devastating was revealed as it disturbed the air mobility flows and entered into the global consciousness, briefly colouring the foundations of global order with even more worry and with a sense that interdependent global polity is inherently dangerous.

Diseased interconnectedness

SARS came alive in the particular anxious political context of early 2003. The suspicions over terror cells and Iraq-like evil nations, so inhuman that they could use violent diseases as WMDs, amplified the sense of dangerous incompatibility and alien foreignness. The images of SARS became associated with such types of dangerous contact across regions, which were at different stages of development, across ideological separations, and across West–East demarcations. The speculative stories about the origins of SARS often highlighted the transgressed inter-species boundary in the 'hot' markets of Southern China – a prevalent theme in the recent pandemic scares. The 'fever' was to a degree associated with the feverish agitations of the global age and with the lowered and porous boundaries. The rapid transmission of SARS from Hong Kong to Toronto exemplified the dangers of air travel as did the SARS-related alarms in many international airports. SARS was feared to spread rapidly from every place where the international hub-and-spoke network of airports spread. From this perspective, it was noteworthy that SARS did not only afflict people. It was also seen as afflicting the system of international travel and, through it, everybody. Flights were cancelled and re-routed, travel warnings were issued, airlines experienced financial hardships and the tourism industry suffered. SARS' containment drama was clearly linked to globalization and to the disappearing of vast distances through ease of flying and, incidentally, of flight from the perceived containment zone.

It is suggested that these fears were hyperbolized in the context of major wars. SARS was repeatedly used as a benchmark for what might happen if terrorists were to use WMDs: 'The SARS epidemic, while deadly, is simply a mild portent of what may be to come' (Hamilton 2004, p. 85). Using SARS as an example of what a biological terror attack might look like, Hamilton (2004, p. 85) calls for the USA and the European Union to heighten their preparedness. His arguments for the development of resilient societies are fairly representative of a trend in interpreting the lessons learnt from SARS and WMDs. Furthermore, he identifies the intersections of flows of people as the main focal points in such a creation of resilience: '... it has become clear that controlling borders, operating ports, and managing airports and train stations in the age of globalization involves a delicate balance of identifying and intercepting weapons and terrorists without excessively hindering trade, legal immigration, travel, and tourism – all aspects upon which European and US prosperity increasingly depend' (Hamilton 2004, p. 85). This argument summarizes many points present in the SARS chronology. The measures implemented to fight SARS had the potential to adversely affect systemic-level networks. WHO had to balance its measures to control the international and intercontinental spread of the disease with the need to keep businesspeople and tourists travelling. However, the emphasis on resilient societies is not value free and politically inert. It can be seen as blending geopolitical speculation of where the threats are emanating from with the need to secure the global order against emergent challenges.

Besides taking place in the context of war, SARS combined with other aspects of the tense geopolitical competition. This was not surprising because influential relationships often emerge from the two parallel processes: besides the fierce competition between disease agents and humans, an equally ferocious contention takes place between states (McNeill 1976, pp. 1–10). Although SARS was regarded as a novel and dangerous threat, it was made to fit the large-scale patterns of world politics. In many places, the disease was identified with China or the ethnic Chinese in the popular media representations. Appearing amidst fierce international and regional competition, which is highly sensitive to rumours and suspicions, lethal epidemic diseases tend to blend the self-interest of power-politics with honest and genuine willingness to prevent and stop human suffering. In some respects, all the actors had conflicting agendas. Judging from the history of disease encounters, the most often used means for fighting the negative power-political effects of epidemics are diversion, deception and secrecy. These tendencies also gave substance to the SARS scenarios. The cultural stereotypes that China and the Chinese were secretive, closed and somehow suspect provided material for the understanding of the Chinese danger. Rightly or wrongly, China's secretive political system was seen as one of the most important causative agents: 'In deciding to hush up the SARS outbreak in Guangdong province in 2002, the Chinese government gave the virus a head start and allowed it to spread globally' (Crawford 2007, p. 230). Although the Chinese role was mostly seen as unintentional as it seemed to stem from the nature of its political system, the situation was comparable to the framing of the biological weapons threat seen as caused intentionally by the rogue outlier, Iraq.

At the time, China was seen as an outsider in the international community – limited in its transparency, only partially reformed and unevenly developed. The White House document entitled 'President Bush's Meeting with the Chinese President' of 1 June 2003 describes how President Bush praised Chinese willingness 'to become transparent on the issue of SARS'. The suspicious attitude towards the Chinese contrasted with the praise bestowed, for example, on Singapore: 'President Bush commended Singapore for its quick, decisive, and transparent response to SARS [...]'.⁷ In this way, the disease causation of SARS acquired a political charge: '[...] Chinese government control of the means of publication and the lack of clear legal boundaries for free expression in China have inadvertently aided the spread of [SARS] by impeding the free flow of information in the country'.⁸ From this perspective, it may be argued that the message of SARS was clear. Because China was increasingly a part of the global system, the 'errant' ways of the Chinese authorities and the closeness of the system were framed as a worldwide threat. The specifying of the people associated with 'China' as the most susceptible and, therefore, the most threatening group reinforced lingering politico-ethnic suspicions in many parts of the world. At the macro-level, China and its systems were seen as dangerously diseasing. The micro-level attributions of blame reflected existing political animosities: In Canada and Taiwan, news reports sometimes blamed Hong Kong; Japanese reporting tended to frame the danger as Chinese and Taiwanese; popular imagination in Taiwan often saw the blame in mainland China; the Chinese press tended to localize the problem to the Guangzhou province; and the Western press blamed China. In many places, the disease was perceived to be associated with China or to people of ethnic Chinese origin. At the deeper level, these racializations, ethnicizations and localizations fitted the existing imageries of incompatibility and the fears of those deemed politically and culturally unfit for the global age.

Conclusion

The focus in this article has been on developing a critical stance towards the abstract insular notions of military security, air mobility and pandemic diseases. In this way, it has been vital to see how abstract topologies – hub-and-spoke imageries, geopolitical enmities and disease

maps – have other more felt and sensed modalities: they derive their more encompassing meanings from a range of bodily insecurities and dangers of mobility/movement. Rather than distinct abstract categories, wars, air mobility and SARS can be seen as intermediating constructs in which combinatorial tendencies inevitably fuse abstract thinking with diverse painful sensory, kinetic and emotive experiences. These modalities readily react with and across power- and security-related situated scenarios of knowledge. The reach of war is not limited to what happens in high politics or on the battlefield. It extends to other realms such as disease and mobility as well. The main reason for such reach is that these other domains share cross-cutting framing with geopolitical-level enmities. Because of these clear combinatorial possibilities, wars tend to amplify diseases and disease constructs – for example, pandemic security – can be used to amplify enmities as situations escalate towards major war. These anxieties blend with fears over air mobility.

Although thoroughly interconnected, the global fabric space is not evenly spread. It thickens near and gravitates towards the global hubs. The global air traffic embodies this uneven or lumpy pattern. At the same time, pandemic diseases – diseases affecting the whole of the ‘pandemos’ – can embody and be used to narrate the different fears that this system might become conducive to regressive spiralling processes. While the global hub-and-spoke system is a signifier of globalization, pandemics register long-existing fears and worries that the rapid long-distance connections are dangerously diseasing. To a large extent, SARS came to be constructed as a disease of global networks. At the macro-level, it was seen as having the capacity to force the closure of modern life’s support systems and turn upside down the polities that have become reliant on them. In a way, SARS was interpreted to have come with an ominous message for political reform. This message was often read as one of creating more resilient and prepared societies. These themes had been highlighted also in the War against Terror. The War against Terror and the Iraq War accentuated these suspicions by focusing on such signifiers as the Axis of Evil, besides concentrating on the uses of epidemics as WMDs.

The nexus between wars, SARS and air mobility seemed to demand the re-imagining of social organization, political authority and expert governance, and to hammer home the importance of resilience and preparedness as the key signifiers of future security. The official documents on SARS often highlighted the close connection between naturally occurring and intentionally caused outbreaks of disease. Moreover, it was perceived that the measures aimed against naturally occurring outbreaks offered a way to combat possible intentional outbreaks. The preparedness over naturally occurring diseases was seen as a testing ground for developing security in the case of biological warfare. This combined dynamics provided a powerful undercurrent to the term, ‘global health security’. It follows from the emphasis on readiness, preparedness and resilience that there is a strategic interest involved in why societies readily turn into paranoid sites, ‘where even an unsubstantiated claim about a threat to public health is likely to be taken seriously’ (Loosemore 2006). The discourses of pandemics are likely to be used to create senses of security utterly unrelated to what pandemics as epidemiological phenomena are supposed to be.

Notes

1. Besides the lethal diseases, nuclear threats were much in use. There was a general trope repeated, for example, by the then National Security Advisor Condoleezza Rice that the world could not afford to wait for the ‘mushroom cloud’ (CNN, 10 January 2003).
2. ‘Fact Sheet: Health Security Initiative’ on 21 October 2003: ‘The across-the-board improvements to the nation’s biodefense capabilities have vastly increased day-to-day security for all Americans, not only against threats posed by terrorists, but for medical response in the wake of natural catastrophes and in response to naturally-occurring biological hazards such as SARS’.

3. 'Joint Statement between the United States of America and Singapore' on 6 May 2003.
4. 'BioDefense Fact Sheet', 28 April 2004.
5. Pandemics are often conceived of in terms of potential fatal blows against civilizations (e.g. Garret 1994).
6. 'O'Neil, Fauci Discuss President's AIDS Initiatives', 3 May 2003, White House.
7. 'Joint Statement between the United States of America and Singapore', 6 May 2003, White House.
8. 'Expert Commission Links Spread of SARS, China's Legal System', 10 May 2003, US State Department.

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