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Immunity: Security; Security: Immunity… ad infinitum

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Abstract

This article argues that the way Covid has been dealt with reinforces one of the major ideological shifts of our time, namely the conflation of immunity and security. This is a process whereby security has been increasingly naturalised as a kind of biological truth and the body imagined as a security system. Exploring the development of this conflation through both the immunological imagination and key texts from within the world of security, the article then turns to the autoimmune disease and asks the obvious question: if the immune system can turn against the very body it is meant to be defending, what does this tell us about the security system and what it will do to its own body politic?

> Tell me from what crisis you were born, and I will tell you what you are like.– Régis Debray, *Prison Writings*

The mainstream narrative is established: Covid is a crisis like no other. Covid is a different order of crisis. Covid is a crisis in which fundamental principles are being challenged. Covid is a moment of rupture the like of which has not been seen for some time. Covid is a crisis that changes everything.

Perhaps those claims are true. But since the worst thing critical theory can do is simply repeat mainstream narratives, maybe some nuance is necessary. What, for example, if it turns out that the novelty of Covid itself has in fact enabled the state's responses to it consolidate a tendency that had been intensifying for decades? What if one way to understand Covid is less as crisis as such but, rather, the continuation or even consolidation of an ideological process that had already become an increasingly important feature of our historical conjuncture: the appropriation of the concept of immunity for the logic of security? And what if this is precisely the kind of step for which the ideologues of security had long been fighting, a step which has been designed to help naturalise the idea of security and make security appear as a kind of truth of biology?

'In times of coronavirus we must rethink national security', claimed *The Guardian* early in the pandemic (20 April, 2020). The claim was just one of many being made at the time. The threat to bodies posed by the lack of immunity to Covid was said time and again to be a crisis of security. Suddenly, everyone was talking about immunity: individual immunity, herd immunity, the immunity of the body politic, the immunity of capital from collapse, the immunity of nations from chaos, the immunity of the system from more crisis. At the same time, every notion of immunity was presented as a question of security. It seemed perfectly natural then, that organisations created to collect and analyse data about Covid infection rates, identify local spikes and recommend appropriate responses, were established under

the rubric of 'security'. In the UK, for example, it was decided that the Department of Health and Social Care (DHSC) and Public Health England (PHE), were not sufficient, and so two new agencies were created: the Joint Biosecurity Centre (JBC), established in May 2020, and the Health Security Agency (HSA), added in August 2020. The shift in the general thrust of the titles is revealing: 'health' and 'care' are deemed insufficient as ideas, usurped instead by the language of 'security'. The three-letter acronym 'HSA' is telling, presumably intended to mirror the better-known organisation that gets abbreviated to 'NSA' (i.e., a 'National Security Agency'). To reinforce the point, the JBC was to be headed by a senior counter-terrorism official, modelled on the Joint Terrorism Analysis Centre, and use a 'levels of threat' model adopted from the same 'levels of threat' used to assess terrorism.

In the political administration of the crisis, then, security and immunity appeared to converge as one shared imaginary. The entanglement of state and subject through the politics of security was to now be tightened through immunity: immunity as security, but then also, and likewise, security through immunity.

Yet if we take seriously this conjunction of security and immunity – if, that is, we take seriously the idea of a *politics of immunity* – then Covid might be better understood less as a crisis as such and much more as the realization of a long-standing tendency to naturalize the whole trope of security in our minds.[1] This is a tendency that has been developing ever since immunity entered the medical field.

Immunity was a legal and political category long before it became a medical term. In immunity's ancient origins one finds nothing remotely 'biological'. In Roman law, immunity conferred *exemption* from various kinds of state obligations. A compound of in- (not), *munus* (a gift as well as a service, but also the root of our term 'municipal'), and -tas (denoting an abstraction), the Latin word *immunitas* has a range of meanings and implications concerned with 'exemption' or 'freedom' from public burdens such as taxes, duties, services, and participation. In Adolf Berger's *Encyclopedic Dictionary of Roman Law* (1953) *immunes* are defined as 'persons permanently exempt from military service', such as priests and the elderly, and 'those who for any reason were exempt from public charges' such as taxes. Immunitas is defined as 'exemption from taxes or public charges … granted as a personal privilege to individuals, as a privilege of a social group (public officials, soldiers) or of a community'. Thus, what was at issue was the idea of *exemption* as a *privilege*, in the sense of a law that applied only to certain classes of persons, individuals, or municipalities that were exempt from payments of tribute. In this period, then, an immunity was conceived as an exemption and an exemption as a liberty. Only with the discovery of what came to be called the body's 'immune response' in the second half of the nineteenth century did 'immunity' take a biological turn and become a concept with which we think about the process by which an organism maintains continuity of life. In other words, in the late-nineteenth century 'immunity' was transported from the juridico-political world into the biological world.

In taking this step, immunity transformed the way we think of the body. But since the image of the body is always already inscribed in the image of the body politic, the biological notion of immunity also transformed the way we think politically. The idea of the body politic goes back to the ancient world, being found in the work of both Plato and Aristotle, and then into early modern political texts such as John of Salisbury's *Policraticus* (1159), Marsilius du Padua's *Defensor Pacis* (1324), and Christine de Pizan's *Book of the Body Politic* (1406). Many of these did little more than propose that, for example, the prince is the head, state officials are

the hands, the peasants are the feet, and then play on the idea that diseases of the body politic are like diseases in the body. More inventive accounts of the body politic begin to appear in modern political thought in the seventeenth century, such as in Thomas Hobbes' *Leviathan*. Hobbes conceives of the state as imitating that 'most excellent work of Nature' known as 'man', but like 'man' the body politic is also conceived through the lens of Hobbes' mechanicism, such that the heart is a spring, the nerves are strings, and the joints are wheels giving motion to the whole body.

The concept of the body politic shifts and develops along with new scientific discoveries, new biological concepts, and new images of 'man' (Neocleous 2003: 8-38). The idea of a mechanical body politic, for example, gets transformed with developments in technology, as the mimetic body of the eighteenth century, exemplified by the clockwork machine and the automata, gets refined by the development of motors that convert energy into motion, and hence ideas about energetics, and then, in the twentieth century, further refined by the digital body inspired by information-processing and computing technology (Rabinbach, 1990). At the same time, such images of the mechanical body have often involved a conception of nerves, with the nervous system widely considered the substratum of life and a way of thinking about the social order. This is evident in Hobbes' *Leviathan*, but was pressed home in the eighteenth-century Scottish Enlightenment. In the work of Adam Smith, for example, the system of natural liberty is both *rooted* in the physiological nervous system and is itself a *form* of nervous system within the social body. Similar developments take place with the emergence of new ideas about the body, such as genetics. As each of these conceptions of the body emerges and gets refined, so conceptions of the body politic change. Is the body politic a neural system? Is the body politic a body of genetic information? The images are far from mutually exclusive, of course, yet they privilege different notions of identity corresponding to different types of body and they project alternative ways of understanding the relations between subject and sovereign. Each image conjures up different ways of thinking politically. The point is that once immunity becomes a biological idea, so the body politic is, like all bodies, increasingly imagined through the idea of immunity.

Such imagination is found in not only political thought, but within immunology itself, which possesses a rich assortment of tropes, images and assumptions that have helped give the concept of immunity a remarkable depth and complexity rooted in social and political assumptions. Immunological discourse is replete with debates about self and non-self, friend and enemy, identity and foreignness, body and machine, recognition and toleration, system and survival, defence and destruction, war and protection, and nature and nation. As we shall see, it is also replete with a conceptual couplet on which I focus here: *police and security*.

It is this depth and complexity, though not specifically the idea of *police of security*, that has fed into an 'immunitarian turn' in social and political thought. In *Simians, Cyborgs, and Women* (1991), for example, Donna Haraway highlights the ways in which immunity travels easily from bodies to strategic military culture, from clinical medical research to glossy cultural commodities, and from popular dietary practices to feminist science fiction. Niklas Luhmann, in books such as *A Sociological Theory of Law* (1972), *Social Systems* (1984) and *Law as a Social System* (1993), appropriates the idea of immunity for a social systems theory which imagines a society immunizing itself against social 'infections' via a legal sub-system which maintains the balance of the social system overall. Roberto Esposito, building on the work of Haraway and Luhmann in books such as *Immunitas* (2002), *Bíos* (2004), and *Terms of the*

Political (2008), has sought to establish a philosophical paradigm of immunization with the kind of conceptual weight previously attached to 'rationalization', 'legitimization' and 'secularization', with immunity the grounds for thinking about community. Esposito's work overlaps somewhat with the work of Peter Sloterdijk, who traces, through several books and essays, not least the three volumes of *Spheres* (1998–2004), the history and being of homo immunologicus, a creature who lives within and utilises three types of immune system: biological, the first system in evolutionary terms but the most recent to have been 'discovered'; socio-immunological, which incorporates the legal and military systems; and symbolic or psycho-immunological. Parallel to the work of these thinkers lies Jacques Derrida's deconstruction of autoimmunity, in an interview with Giovanna Borradori conducted in the light of the attacks on the World Trade Center ('Autoimmunity: Real and Symbolic Suicides', 2003), building on an essay 'Faith and Knowledge' (1996) and his book *Rogues: Two Essays on Reason* (2002).

Against the backdrop of this work but with Covid in mind, I want to make here a double-sided argument about the politics of immunity. What Covid has brought to the fore is the policing of bodies – human bodies, political bodies, corporate bodies – as forms of life. I want to think about how such policing has been imagined in two seemingly separate intellectual traditions, one immunological and the other securitarian. I do so to stress the extent to which the immunological imagination is saturated with ideas about security and police, before then saying a little about what we might call an immunological turn in the ideology and logic of security. The point is that this turn was taking place well before the emergence of Covid, and it is this tendency that I am suggesting the pandemic will consolidate. Read in these terms, Covid needs to be understood for what it tells us about the wider conjunctural shifts that were taking place before the pandemic hit us, rather than the crisis of Covid itself. Stuart Hall once commented that to think about crisis we need to also recognise the wider conjuncture. 'A conjuncture is a period during which the different social, political, economic and ideological contradictions that are at work in society come together to give it a specific and distinctive shape'. History is not an evolutionary flow, but, rather, moves from one conjuncture to another. 'And what drives it forward is usually a crisis, when the contradictions that are always at play in any historical moment are condensed. … Crises are moments of potential change, but the nature of their resolution is not given' (Hall 2010: 5). The conjuncture, then, has witnessed an ideological conflation of security and immunity, which the Covid crisis is driving forward. One possible resolution, however, as I will spell out only skeletally at the end, is that imagining security as an immunological process must always consider the fact that immunity has a way of turning on the very body it is meant to be defending. In this resolution, security may turn out to be the death of us.

Immunity: security

It is generally held that the history of immunology consists of a first phase, known as a 'physiological' period, running from roughly 1880 to 1910; a 'chemical' period from 1910 to 1950, in which few advances were made; and a 'biological' period from 1950 onwards, with this later period generally regarded as a golden age for immunological research. It is conventional to treat the first phase of immunology as a struggle between cellular theory and

the humoral school, represented by Elie Metchnikoff on the one side and Paul Ehrlich on the other. The two shared the 1908 Nobel Prize, yet that joint award somewhat masks the very different ways in which the two thinkers thought about immunity. Ehrlich, who coined the term *Antikörper*, sought to treat the immune process as fundamentally 'chemical' in nature, with toxin and antitoxin influencing one another through direct chemical interaction. Ehrlich pictured antibodies as groups of atoms found in the protoplasm of cells and so, adopting the nomenclature of organic chemistry, he described them as 'side-chains' and, in the process, considered the organism to be 'naturally' immune. But this natural immunity was essentially a passive condition. Metchnikoff, in contrast, saw the immune process as the result of organismal *activity*. During the 1880s, Metchnikoff developed a new hypothesis concerning the role of leukocytes in immunological responses, proposing that leukocytes were able to recognise some micro-organisms as 'foreign' and able to destroy them. This is the process he called *phagocytosis*. Metchnikoff tells a story about how he observed the response of a starfish larva to a thorn: 'It struck me that similar cells might serve in the defence of the organism against intruders'. In lower organisms the phagocyte might serve a simple nutritive function (*phagocyte* coming from the terms *phagein*, to eat, *kytos*, cell), but in higher organisms with a more complex digestive process the phagocyte's function to 'eat or be eaten' takes on a more defensive role vis-à-vis foreign intruders. The phagocyte 'eats' not only to sustain but also secure the organism. This conception meant treating the phagocyte as an active agent and imbuing it with an immanent purpose (Metchnikoff, 1884: 177-195; Metchnikoff, 1901: 521,539, 545). In the context of nineteenth century thought this conceptualisation of the active phagocyte appears essentially 'vitalist', but the point here is that it helped form what became one of the most familiar idioms in immunology, namely intentionality, and placed a logic of security at the core of this intentionality: the phagocyte was conceived of not simply a cellular agent, but as a cellular agent actively engaged in acts of police and security.

Why police and security? Phagocytosis often appears as a kind of militant defence. This is evident in Metchnikoff's classic description of a yeast-like infection among some Daphnia (a water flea) as 'a battle between two living beings – the fungus and the phagocytes'. 'If we examine the organisation of an animal or a plant, we find that their most characteristic features are their organs of attack and defence', he wrote. The phagocyte and, by implication, the immune system as a whole, is 'a more or less highly organised army', and immunity against infective diseases should be understood as a 'veritable battle that rages in the innermost recesses of our beings'. Our being, then, is in a permanent conflict situation (Metchnikoff. 1893; Metchnikoff, 1903: 239). It is easy to put this down to the rise of a crude 'Darwinism' in the nineteenth century, with the natural world divided into friend or enemy and the idea that the immune process is a war against the enemy. In the nineteenth century, the older Hippocratic and Galenic traditions of medical thinking around balance and harmony were usurped by war and conflict, with bacteria and germs identified as 'the smallest but most dangerous enemies of mankind', as Robert Koch put it in a lecture to the International Medical Congress (IMC) in 1890 (Koch, 1890:15), a kind of universal adversary invading and attacking the body.

Now, as is well known, this language of medical warfare has been abundantly evident in the Covid pandemic, revealed in newspaper headlines from the pandemic's early days: 'Our country is at war'; 'the world is at war'; 'we are under attack from an invisible enemy'; 'ours is now a wartime government'; 'wartime President'; 'medical personnel are frontline

workers'; 'in this fight we can be in no doubt that each and every one of us is directly enlisted'; 'we are at war, and this is our draft'; 'raising an army of the infected'; 'a war economy'. As if to prove the truth of all these claims, measures of total war were announced for the whole of society: emergency laws, new police powers, quarantine, troops mobilized, new behaviour instilled in the population. As a result of this abundance of militarized thinking, what has been equally abundant is a rehash of the debate about military tropes and war images in medicine, with many critically minded writers pointing to the aggressive, reactionary, and masculinist nature of the language and how it might actually hinder rather than help in managing the crisis. Yet these criticisms have added little to the argument made many years ago by Susan Sontag who, in two essays on the subjects of cancer and AIDS (Illness as Metaphor and AIDS and Its Metaphors), roundly criticized the use of such tropes and images. My point here is that there is something else going on that takes us well beyond the criticisms made of the 'military model in medicine', and we can see this by tracking back to the first phase of immunological thought.

Despite life's cellular components being in conflict, Metchnikoff considered the possibility of a key idea found in the older traditions of medical thought: 'harmony'. But because his starting point remained that of disharmony – 'I wish only to point out the frequency of the natural occurrence of disharmony' – he argued that this disharmony needed to be *policed* (Metchnikoff, 1903:37). Physiological mechanisms such as inflammation should be understood as a means of policing the body's (dis-)order. The phagocyte, in this image, performs a police function. Such an argument was the basis for criticism of Metchnikoff at the time, and many others since then have objected to 'Metchnikoff's policemen' and the fact that he appears to assign to the phagocytes the power to police the organism (Brandreth, 1910: 578-84; Tauber, 2003: 897-910 (900); Christ/Tauber, 2001:130-1; Vikhanski, 2016: 248; Stefater et al., 2011: 743-52).

The extent to which Metchnikoff's 'police idea' became common is not widely appreciated, and one reason lies in the obsession many have had with the 'military model' in biology. But it is probably no exaggeration to say that the police image has been just as influential as the war image, if not more so, while nonetheless also being overshadowed by it. At the dawn of immunology's golden age, half a century after Metchnikoff's work, Frank Macfarlane Burnet, by then one of the twentieth century's leading immunologists, Nobel prize winner and pioneer of the Clonal Selection Theory that became a major immunological paradigm, described antibodies as 'like plain-clothes detectives with perfect memories for criminal faces'. 'Just as in human communities we have a policeman at the gate of the police barracks, so in the body those cells which produce antibody are themselves provided with the "reminder" they produce. Contact with the "remembered" antigen stimulates a rapid liberation of further antibody (police reinforcements) to deal with the emergency' (Burnet, 1940: 125). Such ideas filtered into immunological textbooks and popular books on immunity in which, alongside the language of war, one finds time and again images and tropes concerning the 'the police function of immunity' or the ways in which the immune system 'patrols the body' (Petrov, 1987: 24, 173; Jerne, 1973: 52). In other words, one finds the war power and police power combined. One finds the *body imagined under a logic of security*.

One popular text, the title of which (*The Wars Within Us*) reminds of the militarized medical model, has plenty to say about the body's war power, but the immune system is simultaneously a police power. First, invading viruses aim to be 'tucked away from police

surveillance' and try to keep changing appearance to 'make things harder for the police'; second, because 'communication and collaboration between immune cells (policemen) is the foundation of effective response', the invading viruses seek to 'interfere with police communications'; third, the virus might even 'invade police headquarters' by attacking the immune system as a whole; fourth, the virus might decide to 'set the alarm bells ringing, call out the police, create a diversion' in order to 'get the police to make the wrong sort of response'; finally, any good invading virus should 'have something ready up [its] sleeve in case of local encounters with police'. In similar fashion, Irun Cohen suggests that 'the immune system is not only a department of defense, it also functions as a department of internal welfare', in the form of 'cells that patrol the body systematically … similar to the strategy of the police, sanitation and fire departments and the board of health'. Marc Lappé in *The Tao of Immunology* imagines a 'cellular police system' that is 'directed to identify and stop adolescents who wore certain age-related clothing (e.g., gang colors), while being told to ignore "more appropriately" attired adults'. Edward Bullmore speaks of macrophages as the 'border guards' and 'robocops' of the immune system (Mims, 2000:109-32; Cohen, 2000: 5, 118; Lappé, 1997:88, 95; Bullmore, 2018: 28, 148).

This language of police is the reason that 'immunosurveillance' became such a major concept during immunology's golden age and, given the conjunction of immunity and surveillance under Covid (the UK's JBC, for example, functions with a 'Surveillance and Immunity Directorate'), it is worth registering the history and the depth of 'surveillance' in the immunological imagination. At an international conference on 'Immune Surveillance' held in May 1970, Burnet commented that 'immunological surveillance is … well established' (Burnet, 1970: 512). Previously, in his 1960 Nobel Prize lecture, Burnet had observed that 'it would profit the organism to maintain a surveillance over the orthodoxy of its chemical structure and to stamp out heresy before it could spread', and a few years later, in his 1968 autobiography, he suggested that developments within the field of applied immunology are 'just beginning to be spoken of under the name of "immunological surveillance"'. By 1970, the same year as the conference on 'Immune Surveillance', Burnet had enough confidence in this idea to publish a book called *Immunological Surveillance*. (Burnet, 1960: 187; Burnet, 1970a: 61). The 1970 conference opened matter-of-factly: 'What is surveillance? The word itself raises images, most frequently of police actions' (Smith, 1970: 3). Later in the conference proceedings, 'immune surveillance' is described in the following way:

> One can view the Mafia and the police officers as opposing social adaptations. The effects of a long-standing interrelationship between the two forces are apparent. On the one side of the police are gun-wielding, club-carrying authorities, undercover agents and detectives, specialized forces for infiltrating the ranks of the opposition, IRS [Internal Revenue Service] officers skilled in detecting, quantifying and reporting illicit income and many other adaptations to the need for despoiling the Mafia. On the opposite side, equally ingenious and sometimes even more skillful adaptive mechanisms for getting around the defenses developed by the law enforcement agencies and designed to avoid the effectiveness of the suppressive machinery can be observed (Good in Smith/Landy).

From thereon it became common to imagine the immune system performing 'a surveillance function perpetually patrolling the body, as it were, for evildoers' (Burnet, 1973: 169). In his overview of the history of the idea of immunity, Tauber suggests that surveillance may well be the original function of the immune system (Tauber, 2017: 111, 117), and the concept became so paradigmatic as to appear in dictionaries of philosophical biology such as P. B. Medawar

and J. S. Medawar's *Aristotle to Zoos* (1984). 'Inside each of us is a surveillance network that would make the NSA green with envy', observes one recent text (Carver, 2017: 25).

What was taking place with this naturalization of the idea of surveillance was a strengthening of the idea of the immune system as police power, but also as a power comprehensible through a general security logic. In *Immunology: The Science of Self-Nonself Discrimination*, a major textbook in the field, Jan Klein insists that we must use our imagination when thinking about immunity. What should we imagine? That security state par excellence: 'Imagine a totalitarian city that George Orwell might have created for *1984*'. On this view, the cells of the immune system 'patrol the tissues of the body, searching for nonconforming alterations to the cell surfaces. ... When they spot a cell with an unfamiliar plasma membrane, they become activated and organize an all-out attack on the strange cell, destroying it before it can spread through the body' (Klein, 1982: 647). The police power is always at war just as the war power turns out to be a police power.

As the body's powers of war and police coincide, so the language of the 'invader' slips into the language of the 'intruder', and often into that ubiquitous security threat known as the 'illegal alien'. When 'an immune cell bumps into a bacterial cell and says "Hey, this guy isn't speaking our language, he's an intruder", the immune system acts accordingly' (Jaret, 1986: 733). This is always suggested to be a natural and instinctive police response on the part of the body: 'that we are not overwhelmed is due to nature – divine providence having endowed us with a nonspecific, first-line defense system of "specialized "policeman" cells' that "instinctively" recognizes the hostile foreigners' (Desowitz: 105). Time and again, the foreign must be heavily policed.

The security process here also involves even more specialized police functions. First, there are those dealing with serious crimes. The major criminal-disease will try and hide, which means that 'the process of discovery reads more like the plot of a mystery novel', as Desowitz puts it. 'There is the killing, after which the killer and his modus operandi are described. However, in the current edition of our mystery the detective-immunologists are still not satisfied as to the nature of the actual weapon and whether or not the killer has any accomplices'. The author admits that the reader of his book on immunity might mistake it for a book on criminal psychopathology (Desowitz: 102, 112). Second, there is the policing of the workplace. 'Many weapons systems are available to the security forces of the complex', including 'vital "first line of defence" security men' which police the body like a workplace. 'Should a would-be saboteur enter the establishment in the early hours of the morning, our spotters would recognise the likelihood that the saboteur is an intruder and move in closer for a better look using a closed-circuit TV. ... A computer then runs through all the physical appearances of the plant's legitimate employees on the other half of the screen, so that with incredible accuracy the physical features of the foreigner and members of the legitimate family are compared' (Dwyer: 30).

One can gauge the strength of the police-security model of immunity by the fact that even those immunologists who have sought to move beyond the language of war power rely on the language of the police power. Polly Matzinger has been hailed as 'blazing an unconventional trail' to a new 'immunological paradigm', as 'immunology's dangerous thinker', and as 'tearing up immunity's rulebook' through a 'Copernican revolution' within immunology; she has been the subject of a BBC documentary called 'Turned on By Danger' in 1997 and other films (Larkin, 1997: 38; Cohen, 1996: 14). This reputation has come through her *Danger Model*,

with which she challenges the major immunological Self/Nonself model and the paradigm of war. Yet instead of immunity as a war power, what we get is a police power. Asked in an interview about how her *Danger Model* differs the standard immunological approaches, Matzinger suggest that we 'imagine a community in which the police accept anyone they met during elementary school and kill any new migrant. That's the Self/Nonself Model'. In the *Danger Model*, in contrast, 'tourists and immigrants are accepted, until they start breaking windows. Only then, do the police move to eliminate them. In fact, it doesn't matter if the window breaker is a foreigner or a member of the community. That kind of behavior is considered unacceptable, and the destructive individual is removed'. In the *Danger Model*, the police wait for an alarm signaling that something is doing damage. 'If an immigrant enters without doing damage, the white cells simply continue to wander, and after a while, the harmless immigrant becomes part of the community' (Dreifus, 1998).

What we have in the immunological imagination, then, is an overwhelming police power working alongside and as part of the war power. To put it another way: entrenched in the immunological imagination is the idea that *the body must be secured.* Immunity is security. It is not only surveillance that is naturalized, but security itself. Immunity: security.

But if we find 'immunity: security' in the immunological imagination, then what better way could there be to consolidate the whole logic of security, a logic now so powerful that our society is sinking under its weight, than to get people to also believe in 'security: immunity'? Covid has put this thought in people's minds, but what if the steps in that direction were well under way before Covid? And what if the rationale for that was not to manage a crisis but to reinforce in our minds the naturalness of the very idea of security?

Security: immunity

In 2011, one of the world's leading corporations took the idea of the corporate body to its logical conclusion and announced that security and immunity were now as one: welcome to the Facebook Immune System. 'We call it the Facebook Immune System (FIS) because it learns, adapts, and protects in much the same way as a biological immune system' (Facebook, 2011). And to explain the FIS, three *Facebook* engineers adopted the concept of the 'adversarial cycle' straight out of the textbooks of security:

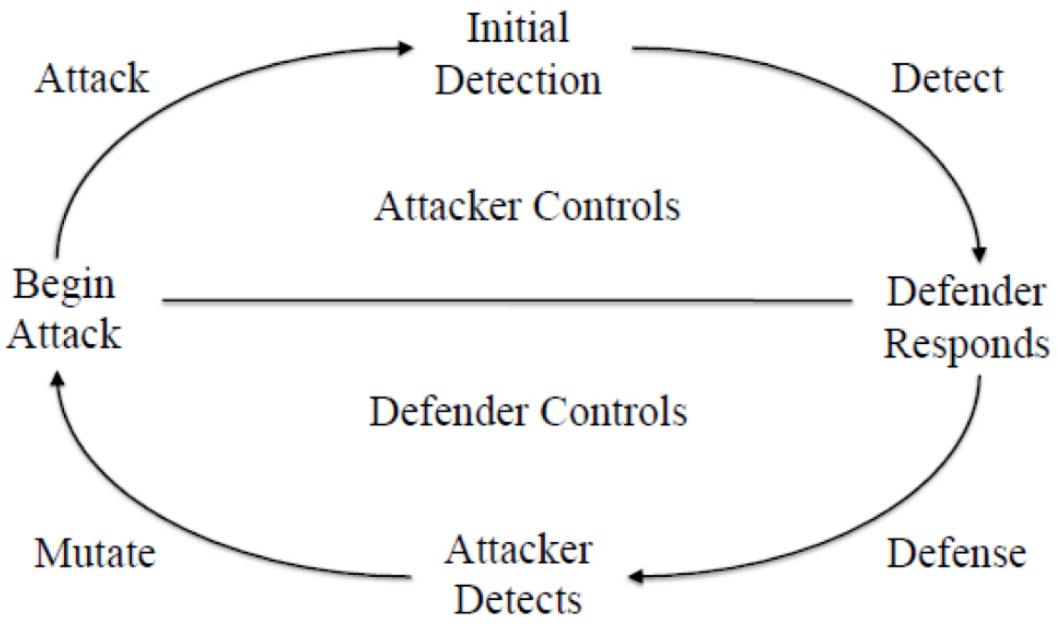

Figure 1: 'Facebook Immune System', EuroSys Social Network Systems (SNS), 10 April, 2011.

The corporation's choice of title is obviously part of a wider process in which large social media companies have adopted organic-sounding ideas to present as natural the ways in which subjects and objects are ordered in their corporate algorithms. It is, however, also evidence of the close cultural as well as political assumptions that drew immunity and security together prior to Covid. And it is evidence too of developments that were taking place around security.

Earlier in 2011, the US Department of Homeland Security published a Report called *Enabling Distributed Security in Cyberspace: Building a Healthy and Resilient Cyber Ecosystem with Automated Collective Action*. The Report articulates the idea that 'in cyberspace, intelligent adversaries exploit vulnerabilities and create incidents that propagate at machine speeds to steal identities, resources, and advantage'. To tackle this, the Report posits a cyber ecosystem consisting of private firms, non-profits, governments, individuals, processes, and cyber devices such as computers, software, and communications technologies, which together form 'a healthy, resilient – and fundamentally more secure – cyber ecosystem'. The cyber ecosystem is thus about national security, but also the security of the cyber ecosystem itself. To get us to imagine security, the Report draws inspiration from another 'ecosystem': 'we draw inspiration from the human body's immune system'. To this end, we have offered us a diagram of how a cyber security ecosystem might be imagined.

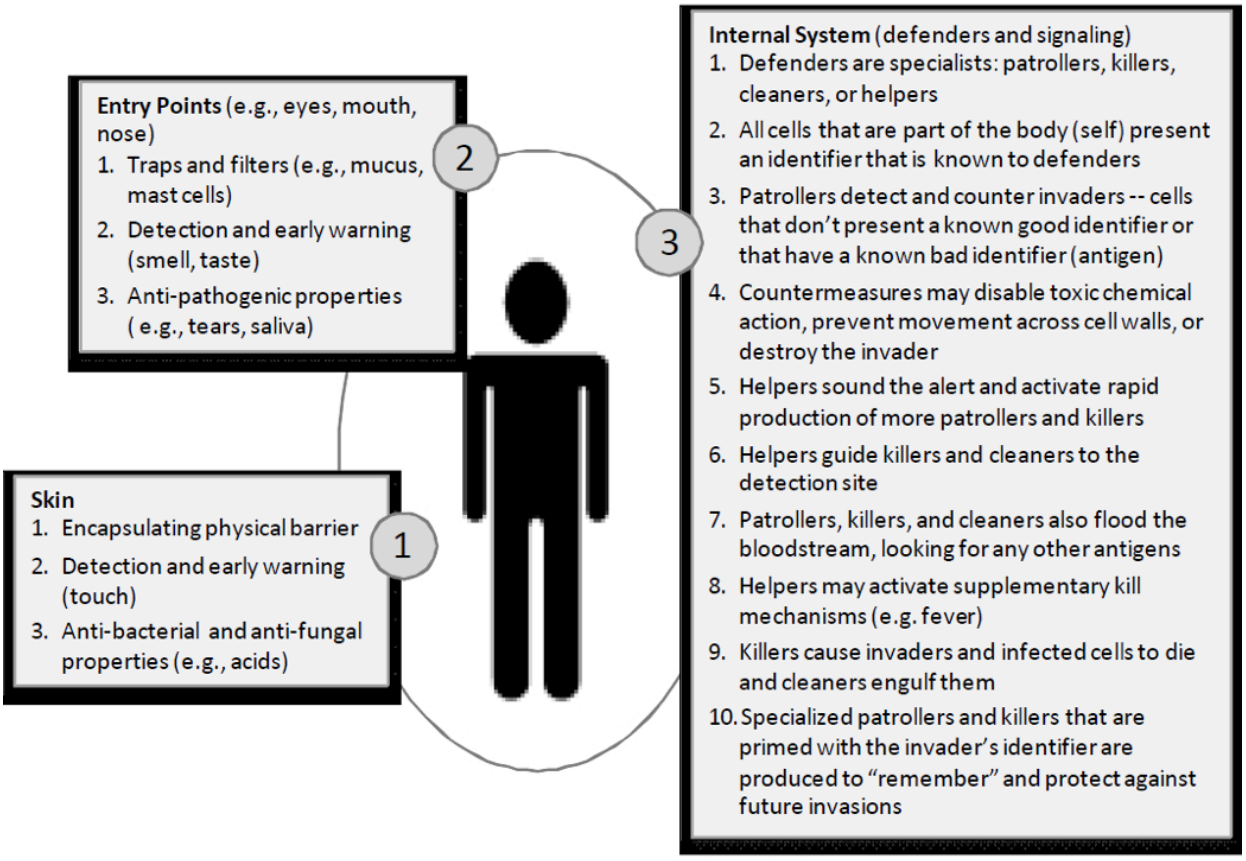

Figure 2: Department of Homeland Security, Enabling Distributed Security in Cyberspace: Building a Healthy and Resilient Cyber Ecosystem with Automated Collective Action (11 March 2011).

Such use of 'immune system' in security circles was far from original. Colonel John Warden III had developed a similar idea some years previously. Warden was perhaps the leading US air power strategist of the latter decades of the twentieth century, widely credited for being the brains behind *Operation Desert Storm*. His book *The Air Campaign* (1989) emerged from US war strategy of the previous 40 years but was in turn influential on that strategy. The book outlines an approach based on identifying and then attacking the enemy's centres of gravity, later presented in terms of a 'Five Ring Model', with leadership the inner ring and the military forces the outer ring, with population, infrastructure and 'organic essentials' between them; each ring constitutes a 'centre of gravity' which might be targeted. In the 1990s Warden developed these arguments into a 'universal system model'. 'All systems seem to require certain organic essentials, normally some form of input energy and the facilities to convert it to another form'. For human beings, the essential inputs are food and oxygen, to enable the vital organs to function. The body is 'a complete system', in other words, that 'can do everything it is designed to do'. The problem is that the world 'is filled with nasty parasites and viruses that attack the body whenever they can'. The body must protect itself with specialist cells, and so the image is conjured up of the state's security system as its immune system (Warden, 1995: 40–56; Warden, 1994). Similarly, Colonel Frederick Timmerman of the US Army Command, suggests that since war is a human activity, perhaps the most appropriate model to use to understand it is 'the most complex biological model we know – the body's immune system'. This system is 'a remarkably complex corps of internal

bodyguards' consisting of 'reconnaissance specialists, killers, reconstitution specialists and communicators that can seek out invaders, sound the alarm, reproduce rapidly, and swarm to the attack to repel the enemy' (Timmerman, 1987:52). We find parallel arguments in publications from other departments of state and organisations. One finds reports such as one by the US National Intelligence Council in 2000, stressing the implications for national security from what it saw as a growing global infectious disease threat, or the one by the Rockefeller Foundation arguing that 'emerging infectious disease … poses a clear threat to national security' (NIC, 2000: 5; NIC, 2008: 7; Chyba, 1998: 5, 14). On this basis, one gets articles by officials in the US Department of Health on the immune system as a Clausewitzian security lesson, and by officers from the Air University at Maxwell Air Base, Alabama, on the need to develop an immunity against the metastasizing force of terrorism within the body politic (Hayunga, 1989; Stickle, 2002).

Such ideas and images were also developed in the work of leading security intellectuals during the war on terror. Leading COINdinista David Kilcullen, for example, identifies four phases of guerrilla warfare: infection, contagion, intervention, and rejection. In the infection phase, insurgent groups establish a presence 'just as a virus or bacterium is more easily able to affect a host whose immune system is compromised'. Intervention leads to a societal immune response against the guerrillas, and the rejection phase can be understood as 'a social version of an immune response in which the body rejects the intrusion of a foreign object'. In his more recent work arguing that counterinsurgency practice needs to come out of the mountains and into the cities, Kilcullen deals with the problem of how cities are to be defended. One way is to imagine them as biological entities with metabolisms. 'If cities have metabolisms, they also have immune systems – ways to deal with internal challenges, absorb toxins, and neutralize threats' (Kilcullen, 2009: 35–8, 244; Kilcullen, 2013: 248).

Our conjuncture, then, is one in which descriptions of viruses seem to be written by security intellectuals and descriptions of terrorism seem to be written by virologists. We are told on the one hand about the 'virus' of terrorism that requires major and permanent security measures and operations, and, on the other hand, about viruses as forms of life so terrible, terrifying and terrorizing that they require the same measures and operations, setting in motion a never-ending host of potential enemies that induce one security logic after another and reinforcing the normality of emergency. Well before Covid, the contemporary security agenda had been expanded to incorporate a politics of all that exists, life itself, enabling security to become wedded to immunity just as immunity was already wedded to security.

We were already being taught that a body politic without a system of security is as defenceless as a body without a system of immunity. The politics of immunity thus points to *security's desire to cover the whole realm of human experience* and the police of life itself, from cells to selves, from systems to sovereignty, and from the health and welfare of the body to the health and welfare of the body politic. The invocation to imagine the body as a security system is equally an invocation to imagine the body politic as an immunity system. Immunity is articulated as security, security articulated as immunity; immunity imagined as security, security as immunity; round and round we go, as security draws on immunity to reinforce its power just as immunity draws on security to insist on its importance, to the point where they coincide. This is security's ideological endgame: its own naturalization as an idea, by claiming for itself its status as the immune system of the body politic. Immunity: security; security:

immunity … *ad infinitum*.

What might this mean for the crisis of Covid and the wider conjuncture? What might this mean for the argument that Covid has created policing mechanisms and security systems which run the risk of choking life out of the body politic?

Secured to death

Reinhart Koselleck reminds us that it was the medical meaning of 'crisis' that originally shaped the political deployment of the word. 'The medical usage of the word [crisis] first acted as the influence behind its spread. The use of figures of speech drawn from the body for the life of states may have fostered the medical metaphor. It served to diagnose sickness or health and predict life or death' (Koselleck, 2002: 238). But predicting life and death, and thus attempting to police them, has also undergirded security politics since its inception. This is perhaps one reason why the inflationary usage of 'security' coincides with the inflationary usage of 'crisis'. It is also perhaps why every crisis is now interpellated as a crisis in security and security measures are always justified in terms of managing a crisis, emerging from the crisis, or staving off the crisis-to-come. On the one hand, then, Covid might best be seen not as a crisis, but as another example of the policing of bodies human, corporate and political through the combined power of security and immunity, consolidating developments within the ideology of security that had been coming for some time.

On the other hand, perhaps there is something else to consider. If security's endgame lies in its unity *with* immunity and its appearance *as* immunity – the unity of the body of the state with the bodies of the people – what then of that awful shadow known as the autoimmune disease? It is perhaps pertinent that because most of the debate now taking place about immunity concerns vaccination, with human intervention offering acquired immunity to reinforce innate immune processes, immunity appears in the debate as always already good. In the first instance, immunization is said to be protection and the whole process is seen as positive, leaving us with a rather banal debate straight out of the annals of liberal political thought: how to balance liberty with security, a debate in which the fulcrum of balance now hangs on something called 'immunity'. At the same time, and second, the centrality of borders in our political imagination is reinforced: the borders of bodies physiological and political. Secure the borders: keep the security threat at bay. Through such an imagination, immunity's positive dimension is reinforced time and again. After all, who could be against immunity? Who could be against the policing of the body in order to secure the body politic? Immunity here takes on the aura or cherished status of security: after all, who could be against security?[2] But if security is articulated as immunity and immunity as security, and if the body politic is imagined as an immune system, then a pertinent question arises: what of the autoimmune disease? This is a question that takes us way beyond the debate about vaccination.

An autoimmune disease is a disorder caused by the immune system attacking the cells of the body it is meant to be protecting. In an autoimmune disease, the immune system appears unable to tell the difference between healthy body tissue and antigens, resulting in an immune response that destroys normal and healthy body tissue. In Multiple Sclerosis (MS), for example, the immune system mistakes myelin (a substance which protects the nerve

fibres in the central nervous system) for a dangerous body and attacks it; in Rheumatoid Arthritis, the immune system treats the linings of joints as a threat and starts to destroy them; in Hashimoto's Thyroiditis, the immune system attacks the thyroid gland. The range of autoimmune diseases is vast, with some 80 or more different diseases falling under the umbrella term 'autoimmune'. Leading researchers in the field now consider autoimmune diseases together as forming one of the 'big three' along with cancer and heart disease. There is also an increasing amount of research that shows such diseases to be increasing, which may well be one reason why immunity has come to resonate so widely through our culture. 'If it feels like you're hearing about autoimmune diseases like rheumatoid arthritis more and more these days, it's not just coincidence. According to a new study … the number of people with autoimmune diseases – basically, when your immune system attacks your own body by mistake – is on the rise'. This comment from early 2020 foregrounded the findings of a major research project conducted at the US National Institutes for Health, which tested for the prevalence of antinuclear antibodies, markers of a body's immune responses against its own cells, and found that these had increased significantly throughout the population since the 1980s (DeSanto, 2020).[3] As the comment implies, there is now a wealth of evidence that the number of people diagnosed with individual autoimmune diseases has risen over the past five decades in industrialized countries.

All illness and disease remind us of the nature of embodiment, of bodies going wrong and letting us down. If that is true of disease in general, then it is truer still of an autoimmune disease, in which the body does not simply let us down or go wrong but appears intent on destroying itself. This is a situation which is impossible to avoid: immunity creates the possibility of the autoimmune disease. The autoimmune disease reveals a large part of immunity's confounding nature: you think you are getting self-defence and instead you get self-destruction; you think your body is being policed by the immune system, but then the police power turns against it; you think you are getting security but then *the security system starts to destroy its own body.* Immunity thus confounds us at every turn. If we still do not know what a body can do, as Spinoza put it in the *Ethics* (1677), then the autoimmune disease reminds us that we still do not know what a body can do to destroy itself. And what the autoimmune disease reveals above all else is just how self-destructive a body can be. It is impossible to really discuss immunity without registering this fact. This is why Burnet suggested that 'one cannot discuss autoimmune disease without getting into deep water philosophically' (Burnet, 1971: 146). I have in *The Politics of Immunity* considered some of these philosophical implications, along with some of the psychoanalytical ones too, but the point here is that we must likewise get into some deep and very murky water politically, especially if, as the conjunctural moment insists, the body politic's system of security is imagined as a system of immunity.

In a world dominated by ideas of immunity-security, the autoimmune disease appears to be a disease with the kind of 'abstract universality' that Foucault thought was captured by the idea of 'madness'. Immunological texts are replete with comments along the lines that 'autoimmune diseases happen when our guardian [the immune system] becomes our antagonist' (Cohen, 2000: 6). But then we must surely ask what happens when our supposed *political* guardian, the security system, becomes our antagonist? The politics of immunity thus formulates a series of questions about immunity that, when also asked of security, become politically rather telling: how is it that the power that goes by the name immunity (security)

comes to kill the very thing being protected? How does immunity (security) instigate the death of the very thing it is meant to immunize (secure)? How is it that immunity and security are said to *make life live*, and yet also turn out to *make that same life die*?

What the autoimmune disease reveals, then, is a situation in which the body is threatened, damaged, and ultimately destroyed from within by its own processes of immunity (as security), and hence a parallel in which the body politic is threatened, damaged and ultimately destroyed from within by its own processes of security (as immunity). Imagined politically, the autoimmune disease is the self-destruction of the body politic by that body's own security. And this is precisely what we see, time and again, as we witness security systems running amok, overreacting to imagined threats to the extent that they can no longer tell friend from enemy, turning self-defence into self-destruction and undoing themselves with their own hyper-intensified and violent security measures. Or to put it another way: security often damages and destroys the very thing it purports to secure.

This is heightened by the intensification of nervous states. In a nervous state, the body exists in a condition of such alertness that its systems run amok. Hyper-intensive levels of fear make homeostasis impossible. The system responds to its own ever-increasing nervousness by searching for enemies, finding enemies and fabricating new enemies. Part of this impact is on the outside (the non-Self, Other, Foreign), but part of it is often turned inwards, as the hypervigilant security system turns towards imagined enemies within. The nervous defence of the body gets easily overextended, to the point of breakdown. To ward off the breakdown, more and more security operations ensue, that themselves lead to further disintegration and breakdown. The system turns against its own body.

Much of this captures the autoimmune disease, but it also captures what is happening through the security practices of the contemporary body politic, in which a hypervigilant and intensified security operation searches for enemies within the body politic, turning that body's self-defence into self-destruction. A nervous extension of more and more security operations leads to breakdown and disintegration.

The politics of immunity is thus always a politics of the autoimmune disease because such disease points us to the idea that even if all threats are dealt with by the immune system, the body can still destroy itself through its uncontrollable search for security. To confront the politics of immunity is to therefore confront what is at stake in security's destructive power. The autoimmune disease, long understood as in some ways symptomatic of the crisis of the self in western culture, is more than anything symptomatic of the crisis of sovereignty and the violence of its security logic.

'Tell me from what crisis you were born, and I will tell you what you are like', Régis Debray suggested from his Bolivian prison cell in 1969 (Debray, 1969: 149). What are we like? Creatures of immunity, obsessed with security; creatures of security, obsessed with immunity. Debray went on to suggest that one should not expect to find the key to an entire historical period only in its 'crisis situations', but maybe in this case the crisis of Covid does reveal something important about our time. Well before Covid, immunity had emerged as the kind of concept that security had been seeking in order to further entrench in our minds the idea that it, security, is entirely natural. Covid has thus reinforced the fantasy of our historical period: 'immunity: security'; 'security: immunity'. And yet perhaps in Covid we also see revealed something else, something revealed day after day in the violence of war and police: that security, like immunity, can destroy its own body.

1 The longer account is in Mark Neocleous, The Politics of Immunity: Security and the Policing of Bodies (London: Verso, 2022), from which the argument here is taken.

2 This was the basis of Mark Neocleous, Critique of Security (Edinburgh: Edinburgh University Press, 2008); Mark Neocleous and George Rigakos (eds), Anti-Security (Ottawa: Red Quill, 2011); and Mark Neocleous, A Critical Theory of Police Power (London: Verso, 2021). It also underpins The Politics Of Immunity.

3 Lara DeSanto, 'Have You Noticed? Autoimmune Diseases Are on the Rise', HealthCentral, 27 April, 2020. The research being commented on was Frederick W. Miller et al., 'Increasing Prevalence of Antinuclear Antibodies in the United States, Arthritis Rheumatology, April 2020.

Bibliography

- Brandreth, Charles J.: 'The Man Who Prolongs Life', The London Magazine, Jan., 1910, 578-84.
- Bullmore, Edward: The Inflamed Mind: A Radical New Approach to Depression. London: Short Books, 2018.
- Burnet, Frank M.: Genes, Dreams and Realities. Harmondsworth: Penguin, 1973.
- Burnet, Frank M.: Walter and Eliza Hall Institute, 1915-1965. Sydney: Melbourne University Press, 1971.
- Burnet, Frank M.: Immunological Surveillance. Oxford: Pergamon Press, 1970a.
- Burnet, Frank M.: 'Impressions and Comments', in Richard T. Smith and Maurice Landy (eds), Immune Surveillance: Proceedings of an International Conference Held at Brook Lodge, Augusta, Michigan, May 11-13, 1970. New York: Academic Press, 1970.
- Burnet, Frank M.: 'Immunological Recognition of Self', Nobel Lecture, 12 Dec., 1960; Changing Patterns: An Atypical Autobiography London: Heinemann, 1968.
- Burnet, Frank M.: Biological Aspects of Infectious Diseases. Cambridge: Cambridge University Press, 1940.
- Carver, Catherine: Immune: How Your Body Defends and Protects You. London: Bloomsbury, 2017.
- Cohen, Irun R.: Tending Adam's Garden: Evolving the Cognitive Immune Self. San Diego: Academic Press, 2000.
- Cohen, Philip: Tearing Up Immunity's Rulebook. New Scientist, Vol. 149, No. 2023, 30 March, 1996, 14.
- Crist, Eileen/ Tauber, Alfred I.: The Phagocyte, The Antibody, and Agency in Immunity: Contending Turn-of-the-Century Approaches, in Anne-Marie Moulin and Alberto Cambrosio (eds), Singular Selves: Historical Issues and Contemporary Debates in Immunology. Paris: Elsevier, 2001, 130-1.
- Debray, Régis: Time and Politics (1969), in Prison Writings, trans. Rosemary Sheed. Harmondsworth: Penguin, 1975.
- DeSanto, Lara: Have You Noticed? Autoimmune Diseases Are on the Rise, HealthCentral, 27 April, 2020.
- Desowitz, Robert S.: Thorn in the Starfish: The Immune System and How It Works. New York: W. W. Norton & Company, 1988.
- Dreifus, Claudia: A Conversation with Polly Matzinger: Blazing an Unconventional Trail to a New Theory of Immunity. New York Times, 16 June, 1998.
- Facebook, National Cybersecurity Awareness Month Recap and the Facebook Immune System, 10 November, 2011, available at facebook.com.
- Good, Robert A.: Comments as Session Chair and Discussant of 'Evaluation of the Evidence for Immune Surveillance', in Smith and Landy (eds), Immune Surveillance, 439-511.
- Hall, Stuart/ Massey, Doreen: Interpreting the Crisis, Soundings, 44, 2010, 57-71.
- Hayunga, Eugene G.: Parasites and Immunity: Tactical Considerations in the War Against Disease – Or, How Did the Worms Learn About Clausewitz?, Perspectives in Biology and Medicine, Vol. 32, No. 3, 1989, 349-70.
- Jaret, Peter: The Wars Within: Our Immune System. National Geographic, Vol. 169, No. 6, 1986, 702-34.
- Jerne, Niels Kaj: The Immune System. Scientific American, Vol. 229, No. 1, July 1973, 52-60.

- Kilcullen, David: The Accidental Guerrilla: Fighting Small Wars in the Midst of a Big One. London: Hurst, 2009.
- Kilcullen, David: Out of the Mountains: The Coming Age of the Urban Guerrilla. London: Hurst, 2013.
- Klein, Jan: Immunology: The Science of Self-Nonself Discrimination. New York: John Wiley, 1982.
- Koch, Robert: Über bakteriologische Forschung. Berlin: August Hirschwald, 1890.
- Koselleck, Reinhart: The Practice of Conceptual History: Timing History, Spacing Concepts. Stanford, CA: Stanford University Press, 2002.
- Lappé, Marc: The Tao of Immunology: A Revolutionary New Understanding of Our Body's Defenses. New York: Plenum, 1997.
- Larkin, Marilynn: Polly Matzinger: Immunology's Dangerous Thinker, The Lancet, Vol. 350, 5 July, 1997.
- Metchnikoff, Elias: Ueber eine Sprosspilzkrankheit der Daphnien. Beitrag zur Lehre über den Kampf der Phagocyten gegen Krankheitserreger. Archiv für Pathologische Anatomie und Physiologie und für Klinische Medicin, vol. 96, no. 2 (1884), 177–195.
- Metchnikoff, Elias: Immunity in Infective Diseases (1901), trans. Francis G. Binnie. Cambridge: Cambridge University Press, 1905.
- Metchnikoff, Elias: Immunity, 10, 566–7; Lectures on the Comparative Pathology of Inflammation, Delivered at the Pasteur Institute in 1891, trans. F. A. Starling and E. H. Starling. London: Kegan Paul, 1893.
- Metchnikoff, Elias: The Nature of Man: Studies in Optimistic Philosophy (1903), trans. P. Chalmers Mitchell. New York: G. P. Putnams, 1903.
- Mims, Cedric: The Wars Within Us: Everyman's Guide to Infection and Immunity. San Diego, CA: Academic Press, 2000.
- National Intelligence Council, The Global Infectious Disease Threat and Its Implications for the United States (NIE 99-17D, Jan. 2000)
- National Intelligence Council, Strategic Implications of Global Health (ICA 2008-10, Dec. 2008); Christopher F. Chyba, Biological Terrorism, Emerging Diseases, and National Security. New York: Rockefeller Fund, 1998.
- Neocleous, Mark: Imagining the State. Maidenhead: Open University Press, 2003.
- Neocleous, Mark: Critique of Security. Edinburgh: Edinburgh University Press, 2008.
- Neocleous, Mark/ Rigakos, George (eds): Anti-Security. Ottawa: Red Quill, 2011.
- Neocleous, Mark: A Critical Theory of Police Power. London: verso, 2021.
- Petrov, Rem: Me or Not Me: Immunological Mobiles (1983), trans. G. Yu. Degtyaryova. Moscow: Mir Publishers, 1987.
- Rabinbach, Anson: The Human Motor: Energy, Fatigue, and the Origins of Modernity. Berkeley, CA: University of California Press, 1990.
- Smith, Richard T.: Comments as Session Chairman in 'Organization and Modulation of Cell Membrane Receptors', in Richard T. Smith and Maurice Landy (eds), Immune Surveillance: Proceedings of an International Conference Held at Brook Lodge, Augusta, Michigan, May 11–13, 1970. New York: Academic Press, 1970.
- Stefater III, James A./ Ren, Shuyu/ Lang, Richard A. and Duffield, Jeremy S.: Metchnikoff's Policemen: Macrophages in Development, Homeostasis and Regeneration. Trends in Molecular Medicine, Vol. 17, No. 12, 2011, 743–52.
- Stickle, Douglas R.: Malignants In The Body Politic: Redefining War Through Metaphor. Maxwell Air Force Base, Alabama: Air University Press, 2002.

- Tauber, Alfred I.: Immunity: The Evolution of an Idea. Oxford: Oxford University Press, 2017.
- Tauber, Alfred I.: Metchnikoff and the Phagocytosis Theory. Nature Reviews: Molecular Cell Biology, Vol. 4, No. 11, 2003, 897-910.
- Timmerman Jr., Colonel Frederick W.: Future Warriors, Military Review, Sept., 1987, 46-55.
- Vikhanski, Luba: Immunity: How Elias Metchnikoff Changed the Course of Modern Medicine. Chicago, IL: Chicago Review Press, 2016.
- Warden III, John A.: The Enemy as a System, Airpower Journal, Vol. 9, No. 1, 1995, 40-56.
- Warden III, John A.: Air Theory for the Twenty-first Century. In Karl P. Magyar (ed.), Challenge and Response: Anticipating US Military Security Concerns. Maxwell Air Force Base, Alabama: Air University Press, 1994.