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CONTAGIOUS DISEASE AND SELF-DEFENCE[★]

ABSTRACT. This paper gives a self-defence account of the scope and limits of the justified use of compulsion to control contagious disease. It applies an individualistic model of self-defence for state action and uses it to illuminate the constraints on public health compulsion of proportionality and using the least restrictive alternative. It next shows how a self-defence account should not be rejected on the basis of past abuses. The paper then considers two possible limits to a self-defence justification: compulsion of the non-culpable and over-inclusive compulsion. The paper claims that objections to compelling the non-culpable do not greatly restrict the scope of the self-defence justification. The over-included are, however, innocent bystanders, and methods such as compulsory quarantine, vaccination, and screening are not justified in self-defence.

KEY WORDS: compulsion, contagious disease, public health ethics, quarantine, self-defence

There is at the moment serious concern about a pandemic of influenza developing from the H5N1 avian ‘flu’ virus. In 2003, there was an international outbreak of Severe Acute Respiratory Syndrome (SARS). Since 2001, there have been considerable fears – particularly in the US – about terrorist attacks using biological agents. Among several methods, governments can and do use compulsion to prevent or reduce the spread of contagious disease. Public health services round the world have the power to breach confidentiality, as with notifiable diseases; compulsorily screen international arrivals; insist on treatment, or its less dramatic

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cousin, directly observed therapy; and incarcerate those exposed to contagion (quarantine) and those with symptoms (isolation). Nor are these powers used only in pandemic emergencies. For example, special detention facilities for non-compliant patients were used in New York City in the early 1990s to control an outbreak of multi-drug resistant tuberculosis.¹ And confidentiality is routinely breached in countries that require doctors to report cases of diseases such as AIDS to public health authorities.

Compulsory measures, on the face of it, infringe on fundamental personal rights, and so one would expect them to be ethically controversial. They certainly have raised controversy, particularly in the US, but it has mostly been about whether the measures would actually do any good or whether there are adequate procedural safeguards on their use.² What is largely missing is a detailed account of the ethical justification of public health compulsion and the limits on its use.

Against this background of undeserved neglect, this paper develops an ethical account based on self-defence. The paper draws on the large philosophical and legal literature on self-defence, which admittedly is usually concerned with contexts that are rather different from public health, such as war and private responses to threats of violence.³ The aim of the first part of the paper is to show that, nonetheless, self-defence offers a distinctive and valuable justification of public health compulsion. It will explain how self-defence illuminates the generally accepted constraints on compulsion of proportionality and using the least restrictive alternative. It will also show that, contrary to how self-defence has been used in

¹ Howard Markel, *When Germs Travel* (New York: Pantheon Books, 2004), p. 44.

² For the opposing sides in the controversy, see the exchange between two leading writers in the field: Lawrence O. Gostin, 'When Terrorism Threatens Health: How Far are Limitations on Personal and Economic Liberties Justified?', *Florida Law Review* 55/5 (2003) 1105–70, and the commentary in the same issue by George Annas, 'Puppy Love: Bioterrorism, Civil Rights, and Public Health', 1171–90. See also Gostin's book-length discussion, *Public Health Law: Power, Duty, Restraint* (Berkeley and Los Angeles: University of California Press, 2000) and Gostin, 'The Future of Communicable Disease Control: Toward a New Concept in Public Health Law', *The Milbank Quarterly* 83/4 (2005) 1–17.

³ Although self-defence has been discussed in medical ethics as a potential justification of abortion. See e.g. Nancy Davis, 'Abortion and Self-Defense', *Philosophy and Public Affairs* 13/3 (1984) 175–207; F.M. Kamm, *Creation and Abortion* (New York: Oxford University Press, 1992), pp. 42–56.

public health reasoning in the past, the considerations adduced here do not support such abuses as compulsory sterilization or murder for eugenic purposes. The aim of the later part of the paper, once self-defence has been shown to be a distinctive and valuable justification in public health, is to explore its limits. It considers the problem of self-defence against those not responsible for their conditions, and finds no significant limit here to the application of self-defence to public health. It does claim, though, that self-defence does not justify a cluster of measures, including compulsory quarantine, that are over-inclusive in that they predictably affect the non-contagious.

There are some assumptions and caveats. First, an explanation of 'public health compulsion'. Because the focus of this paper is on contagious disease, it does not get to grips with current controversy in public health about the ethics of steering people into healthy behaviour. So 'public health compulsion' is shorthand for 'compulsion that aims to protect people from contagious disease'. 'Compulsion' is used to cover putative infringements of rights. It is an imperfect term – it does not suit breaches of confidentiality particularly well, for instance – and loose, covering coercion, force, and manipulation. But I do not know of a better term. Second, the paper is concerned with compulsion that appears likely to infringe on personal rights, such as rights of bodily integrity, freedom of movement and association, confidentiality, and privacy. The paper does not discuss infringements on property rights or the regulation of business. Third, this paper assumes that people normally do have these personal rights.⁴ The rights can be waived, for instance when a person consents to medical treatment, and when rights are waived, they are not breached; but we shall be considering only cases where the rights have not been waived. Fourth, the paper is about ethics, rather than law, and it consequently has no particular geographical focus. Nor is it concerned with technical questions about whether the legality of public health compulsion can be

⁴ Other rights might also be relevant. Some believe that a right to religious freedom supports a right not to be vaccinated, although this is controversial. See *Brown v. Stone* 378 SO 2d 218 (1979), where the Supreme Court of Mississippi refused a religious exemption to vaccination as a condition of a child's entry to school. 48 US states do permit religious exemptions, and a few permit exemptions on the basis of 'philosophical' objections. See Lawrence O. Gostin (ed), *Public Health Law and Ethics: A Reader* (Berkeley and Los Angeles: University of California Press, 2002), pp. 387–94.

established on the basis of self-defence in criminal or tort law. Fifth, the paper is concerned with the relatively abstract question of the relation of self-defence to public health. Before reaching practical answers in actual cases, one would need more detail about the facts and about the specific rights in question. That said, the paper does help with working out the right kinds of questions for public health officials to ask. Finally, this paper assumes that people are entitled, under certain circumstances, to use force to defend themselves against serious threats to their life and health. This assumption is in line with common sense and the philosophical literature. Although there is widespread agreement about some of the features of self-defence, there is also significant disagreement about its foundations and its application in certain instances. Since our topic is the ethics of public health compulsion and not the correct account of self-defence, I shall largely try to avoid these disputes by sidestepping them and by using generally accepted views within accounts of self-defence.

The next section begins the task of showing that self-defence is a different and valuable justification of public health compulsion. It shows how a self-defence justification of public health compulsion differs significantly from one which claims that restrictions on individual rights are justified by the amount of good they would do. It then shows how the account applies to public health compulsion, individualistic though the account is.

INDIVIDUAL SELF-DEFENCE AND PUBLIC HEALTH

Consider a familiar example in modern moral philosophy. Suppose the only way in which one can save five patients is by giving each a transplant, and suppose the only source for the transplants is a healthy friendless man who appears for a check-up. Each of the five would live happily for many years following a transplant and usually it is worse if five lives are lost than if one life is lost. Nonetheless, virtually everyone thinks that it would not be permissible to kill the man and reallocate his organs in order to save the lives of five patients. The man has a right not to be killed, and this outweighs the greater gain of saving a net four lives.⁵ One lesson from

⁵ Judith Jarvis Thomson, *The Realm of Rights* (Cambridge MA: Harvard University Press, 1990), p. 135.

this example is that we should not rest content with defending public health compulsion, in simple-minded utilitarian fashion, by saying 'it does more good than harm'. People's rights constrain the pursuit of the greater good. This is not to say that rights may never be overridden for the sake of the greater good but that, if they may, this is only when the good considerably outweighs the harm of the rights infringement. So much is agreed upon by many rights theorists. Nor is the point limited to rights to life. We may not even compulsorily remove part of the man's liver, imposing a small risk of death, to save a life. If the present topic is framed as one of public health versus rights, then it is going to be hard to justify public health compulsion.

Now compare self-defence. If someone is about to attack and kill me, I may in self-defence use deadly force, if necessary. Using deadly force is a justification, not an excuse; that is, the threat to life makes the use of force morally permissible rather than merely removing some of the liability to blame or punishment. Still more justifiably may I inflict a partial-liver-removal-sized amount of harm to save my own life. Hence self-defence differs significantly from overriding rights to do good. And if it can be applied to contagious disease, it would justify restrictions that would otherwise be ruled out by people's rights.

Are these examples unhelpfully dramatic? Arguably, the recent literature on self-defence has had a somewhat distorting focus on deadly force and, in particular, on cases where what is at stake is the life of either the threat or of the person acting in self-defence. In the first place, decisions about public health are not made under certainty; and although this is true of virtually any decision about self-defence (where the gun might misfire, for instance), the recent literature on self-defence has not taken much account of the difference uncertainty makes. Putting that aside, public health compulsion, unlike the standard forced choice in the self-defence literature, does not involve killing and does involve more than two people. Perhaps it would be permissible to, for example, quarantine or breach confidentiality, although not kill, to avoid the spread of contagious disease. But as already mentioned, the extra weighting for rights is a weighting for all rights, not just those to life, and so the general point remains. There is an important difference between saying 'public health compulsion is justified for the sake of the overall good' and 'public health compulsion is justified in self-defence'.

If some act of public health compulsion is to be justified as overriding rights, it must be despite giving a disproportionate weight to the interest of the rightholder. In many cases, public health compulsion might not achieve enough good to justify overriding rights. But, if public health compulsion is justified in self-defence, much changes. We may in self-defence harm the threat more than the threat would otherwise harm us.

Acting in self-defence is different from overriding rights. But how is it applicable to public health? Public health compulsion is not a matter of one individual using force against another who threatens her with infection. It consists of acts by the state to protect people from the contagious. However, the move from individual self-defence to state collective defence is a smooth one. When the state uses compulsion to protect people from contagious disease, it functions as a third party, and the principles underlying self-defence permit third parties to inflict harm on threats in other-defence. That other-defence is permitted is not especially controversial. If someone is deliberately trying to shoot you, an innocent person, then it is permissible for me to save you by killing the threat myself. Indeed, the role of the state as third party defender is more easily justified than private self- or other-defence because some of the worries about private defence, such as a lack of due process, need not apply to the actions of the state.

In one sense of that slippery word, this is an 'individualistic' account of self-defence. It says that the state is authorized to act against threats to people's safety because it acts as a third party defender of them. This is the classic account, within the Lockean tradition in political philosophy, of the authority of the state.⁶ Many within that tradition also claim that the authority of the state is limited to what can be derived from the protection of individual rights, but this paper makes no claim to characterize completely the normative relation of state to citizen. The claim is just that principles of individual self-defence are at least one source of the authority of the state to use compulsion to protect individuals against contagious disease. Note that this is not an argument by analogy from the rights that individuals have to defend themselves to the right that a state has. The argument is that these very rights that

⁶ John Locke, *Two Treatises of Government* (Cambridge: Cambridge University Press, 1960); Robert Nozick, *Anarchy, State, and Utopia* (Oxford: Basil Blackwell, 1974).

individuals have are the source of the state's authority in this matter.

The account here is individualistic in another, related, way. Compare, on the one hand, the state's use of compulsion to protect a citizen from disease with, on the other, the state's defending the way of life of its society from some hostile attack. The first is individualistic, the second what might be called, slippery again, 'collective' or 'communitarian'. Even if state compulsion aims to protect very large numbers of people from disease, it aims to protect them from an aggregate of individual harms. By contrast, 'collective' or 'community' does not refer merely to 'large numbers of people'. Collective or communitarian harms are not individual because the harms, for instance to a way of life, are not reducible to the properties of individuals. The account offered here, based as it is on individual rights of self-defence, is concerned only with the state's use of public health compulsion to protect against such individual harms as being infected with HIV, influenza, TB, and so on. Protecting individuals against disease might also protect communitarian values, but that is another matter.

I stress the point that the account of self-defence given here is individualistic because it plays a role in the later discussion of whether the account supports some of the past wrongs committed in the name of public health. Before that, there is more to be said for a self-defence account of public health compulsion.

APPLYING SELF-DEFENCE TO PUBLIC HEALTH COMPULSION

In the subjects of both public health and self-defence, there is significant consensus on the constraints on force. There are two in public health that are the focus here: the requirement to choose the least restrictive alternative and proportionality.⁷ But what justifies these constraints and what do they actually require? Comparing them with the constraints of minimum force and proportionality in self-defence helps to answer these questions.

⁷ Others include a means-end constraint and fairness. See Gostin, *Public Health Law*, ch. 4. See also J. Childress and R. Bernheim, 'Beyond the Liberal and Communitarian Impasse: A Framework and Vision for Public Health', *Florida Law Review* 55/5 (2003), 1191–219, pp. 1202–6.

The idea of the least restrictive alternative is that for any given amount of public health benefit, the least restrictive alternative should be chosen. For example, if isolating people with TB would do no more good than directly observed therapy (where reliable people check that medication is taken), then isolation should not be chosen, since it is more restrictive than directly observed therapy. The idea of proportionality is that the amount of compulsion must in some way fit with the public health benefit it would achieve. Thus quarantining people who have been exposed to the common cold would be ruled out, since the means chosen are disproportionate to the end.

Both constraints require some way of comparing interventions, to be able to say which alternatives are less or more restrictive, proportionate or disproportionate. Measuring restrictiveness can be done according to how invasive interventions are, how long they would last for, and how many would be affected.⁸ Comparing will not be entirely straightforward; is two days of quarantine more or less restrictive than one hour of compulsory treatment, for instance? Is one day of quarantine for two people as restrictive as two days of quarantine for one person? Both constraints also require some way of measuring the size of public health benefit, where similar problems of comparison arise. But let us set aside the problem of comparing.

The least restrictive alternative and proportionality are constraints that need elaborating and justifying. Why are they ethical constraints, as opposed to, say, prudent maxims to avoid a public backlash? Can we get clearer about what they require, and are their requirements correct? There are some clear and illuminating parallels between them and some widely-accepted constraints on self-defence. What follows brings out just a few of the ways in which this is so.

There is a clear parallel between the least restrictive alternative and the requirement for self-defence of minimum force, which says that force may be used only when there is no alternative and that, of the alternatives sufficient for self-protection, the least forceful must be chosen. If public health compulsion can be justified as self-defence, this parallel provides some theoretical explanation of why officials must choose the least restrictive alternative. But the

⁸ Gostin, *op. cit.*, p. 103.

parallel also explains why this constraint should not be taken literally. According to the constraint, once we know which measures will achieve some roughly equal amount of public health, the least restrictive should be chosen. But what if there is a slightly less restrictive alternative that is much more expensive? Intuitively, some trade offs between restrictions and economic cost are morally permissible, and may be legally permissible too, in the US at least.⁹ The comparison with the minimum force requirement provides some justification of this intuition. If I can avoid your attack then I ought to do that, rather than use force in self-defence. The background context is, however, an entitlement to defend my rights against a threat. There are limits to the costs I can be required to absorb. I do not have to flee to Australia and change my identity, for instance.¹⁰ For reasons of fairness in allocating costs, the idea of minimum force, like the requirement to choose the least restrictive alternative, should not be taken literally.

Proportionality is also a requirement of both self-defence and public health compulsion. I may kill an attacker if necessary to save my life, but not if necessary to save only my apples, to consider one notorious German case.¹¹ The proportionality requirement of self-defence explains the intuition that the state may not force people into quarantine to prevent the spread of colds. Apart from explaining this intuition, proportionality in self-defence can give content to proportionality in public health, the requirements of which are by no means obvious once we leave easy cases. In self-defence, proportionality does not require that the use of force in self-defence averts more harm than it causes. It can be permissible to kill in defending oneself or others against a lesser threat. By parallel, we can then say at least this about the content of public health compulsion: compulsion is proportionate whenever it averts at least as much harm as it causes.

⁹ Ibid., p. 215.

¹⁰ A. Ripstein, *Equality, Responsibility, and the Law* (Cambridge: Cambridge University Press, 1999), p. 195.

¹¹ Whitley Kaufman, 'Is There a 'Right' to Self-Defense?', *Criminal Justice Ethics* 23/1 (2004) 20–32, p. 27.

SELF-DEFENCE IN PUBLIC HEALTH AND THE POSSIBILITY OF ABUSE

So far, we have seen why it is worth looking for an ethical justification of public health compulsion and how considerations of self-defence are particularly well-suited to providing it. Although I am aware of no detailed account in public health of the distinctive significance of self-defence or how it is supposed to work, the idea that self-defence is relevant to public health is not new. It appears, for instance, as one thread in the reasoning in the U.S. Supreme Court's famous early decision in public health law, *Jacobson v. Massachusetts* 197 US 11 (1905).¹² In this decision, which upheld a law requiring vaccination for smallpox, Justice Harlan wrote: 'Upon the principle of self-defense, of paramount necessity, a community has the right to protect itself against an epidemic of disease which threatens the safety of its members.'¹³

For all that self-defence has occasionally been used in legal and policy reasoning about public health, I make no claims for the account offered here on the basis of this pedigree. In part, this is because its career is something of a chequered one. Indeed, it is sufficiently chequered that this section aims to show that the account of self-defence given here should not suffer guilt by association, and in the process make clearer what this account is. I should say that these are quite limited aims, and this section makes no serious attempt to sort through the law and history so briefly summarized here.

Something like a self-defence argumentative strategy was used to defend compulsory sterilization in the US and elsewhere, and reached its limit with the Nazi monstrosities committed in the name of 'racial hygiene'. The underlying idea was one of negative eugenics, that society or the state could legitimately aim to strip out what it took to be bad traits, such as low intelligence, poor health, or belonging to the wrong race. Moreover, coercion and force could legitimately be used to achieve these aims because the state would be defending society against being swamped by elements that were sapping its strength. On occasions, there were analogies explicitly drawn between these eugenic measures and the control of contagious diseases. To take one example, Justice

¹² The judgement is excerpted in Gostin, *Public Health Law*, pp. 206–15.

¹³ *Ibid.*, p. 209.

Holmes cited *Jacobson* in *Buck v. Bell*, a case authorizing compulsory sterilization of a woman deemed an imbecile, and claimed that '[t]he principle that sustains compulsory vaccination is broad enough to cover cutting the Fallopian tubes'.¹⁴ Considerations of self-defence were not the only ones given for these excesses (and were not explicit in *Buck v. Bell*), but something sufficiently like self-defence appears to be there and raises a worry. The worry can be put like this: that a self-defence justification of the sort given in this paper could also be used to support what we now consider to be serious wrongs. To be a genuine worry, however, it cannot be merely that the term 'self-defence' is used both here and there. Any argument can be abused. What would be worrying is if the considerations given so far really do offer some support for these excesses. But this worry is not well-founded.

Let us remind ourselves of some common sense constraints on self-defence. One may only act in self-defence against a genuine threat, which splits into two separate constraints: what is threatened must indeed be bad; and the threat must be likely to produce that bad thing. Moreover, the way in which one acts in self-defence must have some reasonable likelihood of forestalling that threat. The coercive eugenic policies lumped together here fail to satisfy some or all of these constraints. It is a familiar objection to eugenics as historically practised that it ignored value pluralism and made insupportable claims about what is bad. Thus for at least some cases, a self-defence argument fails because coercion does not forestall anything bad. Contrast this with, say, self-defence against catching TB, about which probably no one has a good word to say. In addition, the underlying science of eugenics was so inept that there was no good reason to think that the people being harmed were likely to produce bad effects or that the measures were a good way of avoiding them. Thus any attempt to argue from self-defence to the actual historical excesses would be a dismal failure. And even if we put all this aside, the measures taken fail to satisfy the further constraints of the least restrictive alternative and proportionality.¹⁵

All this is enough to show that the self-defence account given here cannot be used (but can perhaps be abused) to justify the

¹⁴ *Jacobson* in *Buck v. Bell* 274 US 200 (1927).

¹⁵ A. Buchanan, D. Brock, N. Daniels and D. Wikler, *From Chance to Choice* (Cambridge: Cambridge University Press, 2000), ch. 2.

enormities of the past. Still, it is worth going on a bit to remind ourselves of what the self-defence account in this paper is – and is not – claiming. Recall that the account of self-defence here is individualistic. There is a significant difference between claims about the contagious diseases against which people are to be protected and the claims about sapping social strength or race defilement. This is the difference between individual harms, and collective or community harms (or ‘harms’). The alleged harms that were supposed to be avoided by these eugenic excesses of self-defence are largely harms in a non-individualistic sense.¹⁶ It is society that has its strength sapped; the Volk that is weakened. There might or might not be a sound account of self-defence that justifies compulsion to protect against non-individualistic harms, but that is not the account offered here. The individualistic account offered here would not justify compulsion against these non-individualistic harms.

This section largely concludes the case for thinking self-defence offers a distinctive and valuable ethical justification and account of public health compulsion. The remaining sections consider the limits of a self-defence justification. We begin with innocent bystanders. Some of our views about innocent bystanders might be thought to limit greatly the scope of a self-defence justification, but a later section claims they do not. But innocent bystanders do turn out to create a significant problem for applying self-defence to certain key public health measures, including compulsory quarantine and screening.

INNOCENT BYSTANDERS AND PREVENTING HARM

It is a widely accepted moral intuition that we may not kill a person as a means of self-preservation. Even if I would starve unless I killed and ate you, I may not kill you. Nor may third parties kill you on my behalf. It is also widely accepted, although less so, that I may not kill you as a foreseen consequence of defending myself against some threat. If firing at my attacker will also kill you, and you are uninvolved, I may not fire at my attacker. The common term for the uninvolved person is the ‘innocent bystander’. What it

¹⁶ Ibid., p. 52.

is to be an innocent bystander is to be causally uninvolved in the threat. Bystanders who are innocent in this causal sense might not be morally innocent, that is, they might otherwise be bad people. But their badness, if causally irrelevant, does not make them liable to self-defence.¹⁷

The role of innocent bystanders is a significant one in writings on self-defence and plays an important role in the next two sections, which are about self-defence against non-responsible threats and self-defence in the face of uncertain threats. It is also important in pointing to an ambiguity in one of the most common defences of public health compulsion, which is based on preventing harm to others.

The 'harm to others' argument is often taken to be fairly straightforward. The story goes like this: while John Stuart Mill-type liberals might object to state coercion for moralistic purposes or to prevent people harming themselves, even they agree that the state may act to prevent harm to others. Public health compulsion does prevent people from harming others. If even liberals accept this, non-liberals, who are already keener on state intervention, will endorse it, leaving perhaps only a few misguided libertarians to protest.¹⁸ However, while the story is no doubt correct in some form or other, harm to others is not straightforward.

Consider the causal route by which harm comes about. Is what counts that by interfering with someone, harm is thereby prevented or must it also be that the person is prevented from causing harm? It is tacitly assumed that the person being targeted is the one who will do the harming. But suppose it is known that the person would be in no way causally responsible for the infection and so is an innocent bystander. How could this be? Perhaps quarantining this person shows everyone else that the state means business, and they comply all the better. Perhaps by quarantining the innocent bystander, the state can flush out of hiding a relative who is contagious. There seems to be a clear moral difference between acting

¹⁷ Judith Jarvis Thomson, 'Self-Defense', *Philosophy and Public Affairs* 20/4 (1991), 283–310, pp. 298–9.

¹⁸ For a representative version see Gostin, 'When Terrorism Threatens Health', section 3. The writers usually cited as giving the paradigmatic harm to others argument are John Stuart Mill, *On Liberty* (Harmondsworth: Penguin, 1982) and Joel Feinberg, *The Moral Limits of the Criminal Law* 4 vols. esp. vol 1, *Harm to Others* (New York: Oxford University Press, 1984).

against a threat and acting against someone not causally involved. It may be permissible to override the rights of the innocent bystander but this overriding would be, first, not acting in self-defence, and second, likely to require a lot more good to be done for a given restriction than it would if it could be justified in self-defence. The ambiguity in 'preventing harm' is one reason why it is important not to rely on a quick application of a harm to others principle. (Another is that the harm to others principle should not be quickly applied to anything.)¹⁹

COMPULSION AND NON-RESPONSIBLE THREATS

Self-defence and public health compulsion seem most straightforwardly justifiable against people who are culpable threats, that is, people who would intentionally spread disease, or recklessly ignore the risks, or negligently fail to find out what the risks are. People who are culpable threats impose risks in a way that makes them morally blameworthy. If it comes to a choice of letting them impose these risks or instead imposing costs on them through defensive measures, then it is fairer, other things equal, to make the culpable threats bear the costs.²⁰ A classic example is someone who knows she has a sexually transmitted disease and has unprotected sex without informing partners of her status. At least for the culpable, public health compulsion can be justified through self-defence without resorting to the ideas of overriding rights or doing the most good. It might be thought, though, that many of those with contagious disease are not culpable threats. Some might be responsible for acquiring their conditions, but not culpable, such as medical staff who become infected while caring for the sick. Still others might not be responsible for their conditions at all.

It is widely accepted that responsible threats are liable to self-defence (where responsibility is broader than culpability), but more controversial whether self-defence may be used against non-responsible threats. Consider Robert Nozick's absurd, but helpfully pure,

¹⁹ Feinberg, *op. cit.*

²⁰ Thus the negligent, who like the intentional and reckless are at fault, are legitimate targets for self-defence. This is an ethical claim, and not a legal claim about self-defence in criminal and tort law (which anyway varies among jurisdictions). My thanks to a referee for insisting on clarity here.

case. 'If someone picks up a third party and throws him at you down at the bottom of a deep well, the third party is innocent and a threat...Even though the falling person would survive his fall onto you, may you use your ray gun to disintegrate the falling body before it crushes and kills you?'²¹ Some, like Judith Jarvis Thomson, think you may.²² On her view, self-defence is justified to protect one's rights against those who would violate them and even non-responsible threats can violate rights. Others, like Jeff McMahan, believe that you may not.²³ McMahan claims that non-responsible threats are relevantly like innocent bystanders. Grabbing an innocent bystander as a shield from a threat is not legitimate self-defence, and, if McMahan is right, nor is acting in self-defence against non-responsible threats.

This dispute need not be resolved in applying self-defence to public health; it can be largely or perhaps wholly avoided instead. Let us take it that many people with contagious diseases are not responsible for acquiring their conditions. They might nonetheless be responsible for being threats to the health of others. They would be responsible if they were credibly told that they were a threat and told how they could avoid being threats. Suppose the public health service has done just this. If the contagious then refuse to act as advised, they seem to become at least responsible and perhaps culpable threats. They would then be liable to be acted against in self-defence. Thus there is no need to limit a self-defence justification of public health compulsion to those who were responsible, still less culpable, for acquiring their conditions. What counts here is what people with diseases do, not how they got them.

This leaves groups who would be non-responsible threats because, in short, they do not know what they are doing. This would include small children and those with certain mental impairments. On some views, one could justify compulsion against the non-responsible on the grounds of self-defence. On McMahan's view, one could not. Again, we might be able to avoid the controversy over self-defence against non-responsible threats.

It is plausible that to be both responsible and to have at least certain types of rights, one must satisfy certain conditions, such as

²¹ Nozick, *op. cit.*, p. 34.

²² Thomson, *Realm of Rights*, p. 336f.; 'Self-Defense', pp. 300–3.

²³ Jeff McMahan, *The Ethics of Killing* (New York: Oxford University Press, 2002), p. 398f.

having the capacity for autonomy. Those who do not satisfy these conditions might not be responsible, but nor do they have the rights. Thus small children are not responsible, but nor do they have the same rights as the responsible. They do not have, for instance, rights of free association or movement. You may keep your rubella-infected children at home, even if they want to go out and play, to prevent them from infecting pregnant women. Nor do small children have the same rights of bodily integrity as adults. Small children may be vaccinated against their will by their parents. The suggestion here is that we can avoid deciding whether small children are liable as non-responsible threats to self-defence because public health compulsion in many cases would not infringe on their rights anyway.

In certain cases of people with certain mental impairments, similar remarks can be made. Their problems might be so severe that they are neither responsible nor have the personal rights that would conflict with public health compulsion. After all, if people did have the capacity for rights to refuse medical tests or treatment, to free movement, or to confidentiality, why would they not also have the capacity to act responsibly and avoid infecting others? And if they do, they are not non-responsible threats. This point goes through even if the picture is complicated by the fact that people who are not responsible often have guardians of some kind who make decisions for them. It is sometimes mistakenly thought that guardians have a duty to act only in the best interests of their wards, but this duty is limited by the claims of others,²⁴ in this case, those who might be infected. Guardians cannot exercise or defend the rights of their wards against public health compulsion when their wards do not have the relevant rights.

Perhaps, for all that has been said, there are cases where people should not be regarded as responsible for their actions but nonetheless have rights that public health compulsion might infringe upon. If so, we could try to resolve the controversy about whether non-responsible threats are liable to self-defence, something we have tried to avoid. We might then find anyway that they are liable and compelling them is justifiable. Or we might abandon self-defence altogether and instead ask whether overriding their rights

²⁴ Allen Buchanan and Dan Brock, *Deciding for Others* (Cambridge: Cambridge University Press, 1990), ch. 4.

for the sake of more good might justify compulsion. However, the conclusion is that we have found no reason yet to limit to any large degree the scope of a self-defence justification of public health compulsion.

PROBABILITIES, MISTAKES, AND OVER-INCLUSION

Up to now, we have been talking as though public health compulsion would prevent the spread of disease for certain. However, compulsion is not certain to prevent contagion, because it might not work or might even make things worse. People might evade the compulsion, the system to respond to information might fail, the measures to block the transmission of infection might fail, and so on.²⁵ Even if we assume compulsion would work, it is not certain that the people they target would infect others if they were not compelled. Contagious people only threaten in a probabilistic sense, in that, while being carriers, they might not infect others at all. Even if they do infect others, the nature of the infection is also a matter of probability. For example, when people fail to complete a course of treatment for TB, the disease has only a probability of reactivating and developing into a multi-drug resistant strain.²⁶ Some diseases – like polio – kill some people and cause severe disability in others, but produce only minor symptoms in the vast majority of cases.²⁷ On the other hand, those infected could go on to infect others, who could infect still others, and so on.

Intuitively, the less likely bad effects are to occur, the lesser the compulsion that could be justified in self-defence against people who are threats. That said, compulsory isolation, treatment, testing, or breaches of confidentiality could be justified even at probabilities of mortality or serious morbidity much less than 100%. How low exactly is a question to which no short and generally accurate answer can be given. The point here is that, in principle, a self-defence justification of public health compulsion is applicable

²⁵ See Jason Eberhart-Phillips, *Plagues on Our Doorstep* (Auckland: Tandem Press, 1999), ch. 10 'Breakdown of the public health infrastructure'.

²⁶ Ronald Bayer and Amy L. Fairchild, 'The Genesis of Public Health Ethics' *Bioethics* 18/6 (2004), 473–92, p. 489.

²⁷ Gerald N. Grob *The Deadly Truth* (Cambridge MA: Harvard University Press, 2002), p. 189.

in the real world of risk and uncertainty and not just the ideal world of certainty.

However, self-defence applies to those probabilistic threats where, given a person's causal status, she threatens harm. This seems significantly different from a case where we can estimate the probability that someone is a threat based on her membership in a group that poses a threat. Public health has many such cases. Quarantining, as opposed to isolation, is one example. Isolation is the confinement of a person with symptoms, but quarantine is the confinement of someone merely exposed, who might then not go on to become infected. If an entire apartment complex is quarantined, then it is likely that some of the quarantined people are uninfected and causally pose no threat. Widespread compulsory testing and screening provides other examples. In the event of an influenza pandemic, governments might compulsorily test arrivals at borders for symptoms. If so, some of those tested would causally pose no threat. Some people would like all pregnant women to be subject to HIV testing, even though, obviously, very many would not have HIV. Indeed, in some countries, all pregnant women who receive ante-natal care are screened for syphilis without giving adequate informed consent. Those who are uninfected, again, causally pose no threat. As a final example, compulsory mass vaccination, when done as a preventive and not a treatment, will also affect many who would not catch the disease and hence causally pose no threat. It is difficult to see how these measures could be justified by considerations of self-defence. The problem is that, from the point of view of self-defence, the uninfected people pose no threat. They are innocent bystanders and, as we saw above, we may not act in self-defence against innocent bystanders. Here, then, is a limit to the self-defence justification of public health compulsion.

It might be said that the inclusion of innocent bystanders in any broad measure like quarantine is still justified by the principles of self-defence under the doctrine of double effect. According to this doctrine, there is a significant distinction between acts that are intended to harm the innocent and those that foreseeably, but unintentionally, harm them. The doctrine says roughly that it may be morally permissible to inflict harm foreseeably where it would not be permissible to inflict the same harm intentionally.²⁸ Applied to

²⁸ Warren Quinn, *Morality and Action* (Cambridge: Cambridge University Press, 1993), p. 175 n. 3.

quarantine, the claim might be that those who were caught up and not contagious were not intended to be harmed, but merely foreseeably harmed, and that quarantine may then be permissible. How good is this argument?

An argument from the doctrine of double effect is only as good as the doctrine itself. It has been roundly criticized in moral philosophy,²⁹ but it also has its defenders.³⁰ There is no space here to examine the doctrine properly, so let us ask instead whether, in the argument just given, it has been properly applied to quarantine. The question is whether the harm of quarantine imposed on a non-contagious person can be described as foreseen but not intended in a way that satisfies the doctrine of double effect. Things are somewhat murky here. Clearly, when the state's officials force a person into quarantine, they do so intentionally under some description. They intend that this person be quarantined and they do so because they think it is likely a means to their end of protecting against contagion. But the officials might say that they do not intend to quarantine people who are not contagious and so, if this person is not contagious, they did not intend to quarantine him. So there is also a description under which quarantining is merely foreseen, not intended.

All of us can be described in numerous different correct ways. If I were quarantined, officials would have quarantined a man born in Aldershot, although they would not have intentionally quarantined me under that description. But if all that is needed is any true description under which an act is unintentional, then the doctrine of double effect has no application. Any act could be redescribed so that its effects were not intended. For this reason, it is generally accepted that any development of the doctrine of double effect must constrain the ways in which acts can be redescribed as unintentional.³¹ Whether and how a constraint would work is one of many questions that it really would take us too far afield to go into. Perhaps we can say that it is up to someone who would use the doctrine of double effect to support the harms to innocent bystanders of quarantine and other measures should explain why these harms are not intended in a morally relevant sense.

²⁹ Jonathan Bennett, 'Morality and Consequences' in S. McMurrin (ed.), *The Tanner Lectures on Human Values 2* (1981); Thomson, 'Self-Defense', section V.

³⁰ Quinn, *op. cit.*, ch. 8.

³¹ Bennett, *op. cit.*, p. 111; McMahan, *op. cit.*, p. 410.

An alternative argument might go like this. Self-defence is permissible even when one acts mistakenly so long as the mistake was reasonable.³² Quarantine, to continue the focus on that, can affect some who are not contagious but whom it is reasonable to believe are. So, the argument goes, in restricting any who are not contagious, quarantine can be a reasonable mistake. But there is a serious error in this argument. Acting in self-defence against someone I reasonably, but mistakenly, think would harm me is one thing; acting against all of a large group when I am sure some of them would not harm me is another. A person does not become a legitimate target for self-defence just because she is part of a group whose members, considered separately, can each be given a high probability of harming someone. To take a parallel, consider the hypothetical case of a policeman killed by a group of people, 99 of whom were involved and one of whom tried to save him. We would not convict each member if the sole evidence was that he was a member of the 100, even though, in each case, there was only a 1% chance he was innocent. If the state were to convict all, it would knowingly convict an innocent and this could not be explained away as a reasonable mistake.³³

The point about innocent bystanders shows that care must be taken not to misapply self-defence to public health. Consider this argument for compulsory quarantine as put by one US court: compulsory quarantine does not restrict people's rights because they do not have rights to harm others.³⁴ The argument employs one of the classical accounts of self-defence, that legitimate targets of self-defence have ceased to have certain rights. However, as a matter of ethics, if not law, self-defence is misapplied in this case. It is likely that some of those caught up in quarantine would not have harmed others and could not truthfully be said to be even a threat to others. In terms of this argument, they have not done anything to cease to have rights. Nor is this a point just about quarantine. It is about any public health restriction that applies to innocent bystanders.

Self-defence is a complex matter and there may be some accounts of it that would license compelling even people who are innocent

³² Ripstein, *op. cit.*, pp. 190–201.

³³ Adrian Zuckerman, *The Principles of Criminal Evidence* (Oxford: Clarendon Press, 1989), pp. 137–9.

³⁴ See Gostin, *Public Health Law*, p. 211.

bystanders. Rather than try to rule out those accounts, I want to note one implication of any plausible view of self-defence for some ways of reasoning about public health policy. All views of self-defence would speak in favour of targetted restrictions. That is, compulsion should take special care to avoid over-inclusion, because the over-included are innocent bystanders. To apply this point, consider two reasons offered on behalf of widespread compulsory testing of pregnant women for HIV: that testing only those in the high risk groups would miss some who have HIV and thus fail to defend all foetuses from the risk of maternal transmission; and that testing of all rather than only those in high-risk groups would reduce the stigma associated with the test.³⁵ The first is a reason of self-defence but, for those in low risk groups, is inadequate. A policy of compulsory universal testing would include too many innocent bystanders. The second is not justified by considerations of self-defence at all. Sending the right signals or avoiding discrimination are not reasons to treat as threats people who threaten no one.

To say that certain forms of public health compulsion may not be justified in self-defence is not to say that they are unjustifiable. Self-defence is one distinctive basis for an account and justification of public health compulsion, but there is no reason to think it is the only one. For instance, compulsion might be justified by the amount of harm it prevents, even as it thereby infringes on rights.³⁶ And compulsion might be justified as the enforcement of a duty of fair play, itself the solution to certain collective actions problems that arise in public health. There is also no reason to think that the scope and limits of these other justifications will overlap neatly with self-defence. But that is a matter for discussion elsewhere.

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³⁵ Ibid., p. 200.

³⁶ Without wishing to commit myself to any significant legal claims, this idea might be the basis for the necessity defence to otherwise unlawful acts and so, just as there is a self-defence justification for some public health compulsion, there might be a necessity justification too.