

The Ethics of Natural Immunity Exemptions to Vaccine Mandates - The Supreme Court Petition

Abstract: The Supreme Court of the United States has recently been petitioned to revisit legal issues pertaining to the lawfulness of imposing a vaccine mandate on individuals with proof of natural immunity during the COVID-19 pandemic. Whilst the petition accepts that the protection of public health during COVID-19 was an important governmental interest, the authors maintain that the imposition of a vaccine mandate on individuals with natural immunity was not ‘substantially related’ to accomplishing that purpose. In this short report, we outline how some of the petition’s general arguments interact with points we raised in a 2022 article in this journal defending natural immunity exemptions, in light of new evidence. In particular, we reflect on new evidence pertaining to differences between vaccine-induced immunity, natural immunity, and so-called ‘hybrid’ immunity. We suggest that the nuanced nature of this evidence highlights the importance of making fine-grained judgments about proportionality and necessity when considering vaccine mandates. We conclude by claiming that if future pandemics necessitate the imposition of vaccine mandates, then those seeking to justify them should clearly articulate the relevance (and the evidence for) the comparative protection of vaccine-induced, natural, and hybrid immunity.

In a recent press release¹, the New Civil Liberties Alliance announced that it has petitioned the Supreme Court of the United States to revisit legal issues pertaining to the lawfulness of imposing a vaccine mandate on individuals with proof of natural immunity during the COVID-19 pandemic.² In particular, the intent here is to challenge *Jacobson v. Massachusetts*, 197 U.S. 11 (1905), with the petition stating that the court’s intervention is needed to “clarify that government orders to override individuals’ decisions about their own health and bodily autonomy must satisfy heightened scrutiny”, such that they can only be lawful if they are found to be ‘substantially related to an important governmental interest’.² It is important to note here that the petition thus supports a change from the current ‘rational basis’ standard that courts have employed in light of *Jacobson*, according to which lawful measures of this sort need only be ‘rationally related’ to a legitimate government interest.³ As such, although it was forged with particular reference to the COVID-19 vaccine mandates, the petition could potentially have significant implications for the future ability of public health authorities to impose protective measures more generally.

The petition raises various legal issues that we cannot address. Here, we are interested in some of the broader arguments regarding natural immunity exemptions that it makes in support of its position. Whilst the petition accepts that the protection of public health during COVID-19 was an important governmental interest, the authors maintain that the imposition of a vaccine mandate on individuals with natural immunity was

not ‘substantially related’ to accomplishing that purpose. The petitioners support this position in part by appealing to the claim that there is “no difference between naturally acquired and vaccine-induced immunity because both utilize the same basic immunological mechanism”.² In this report, we outline how some of the petition’s general arguments interact with points we raised in a 2022 article defending natural immunity exemptions, in light of new evidence.⁴ We conclude with lessons for future vaccine mandates.

The Scientific Question

One key scientific issue raised by the petition is whether there is any difference between naturally acquired and vaccine-induced immunity. As detailed above, the petition denies any significant difference between the two. In our 2022 paper, we instead defended the weaker conclusion that policy-makers lacked “clear and convincing scientific evidence that immunisation is significantly more likely to achieve the relevant public health benefits than natural immunity”.⁴ This conclusion was based on a brief overview of salient available evidence at that time, and we suggested that policy-makers had to make decisions about mandate exemptions under a degree of scientific uncertainty. The paper outlined some of the ethical dimensions of decision-making under such uncertainty. Crucially, we argued that this uncertainty was sufficient to support natural immunity exemptions; we claimed that it was not necessary to definitively establish that there is no difference between natural and vaccine-induced immunity.

Notably, the petition does not particularly engage with the implications of so-called ‘hybrid immunity’ (i.e. the combination of both vaccine-induced and natural immunity) for natural immunity exemptions. The petition instead notes that “immunity is essentially binary—either one is immune to the pathogen or not. One cannot become ‘doubly’ or ‘super immune’”.² Yet, hybrid immunity was a focus of our discussion with the excellent commentators on our paper.^{5–8} Indeed, at this time there was some evidence to suggest that hybrid immunity may have been superior to either natural or vaccine-induced immunity alone. Such evidence was highlighted by the Centre for Disease Control’s 2021 brief comparing different forms of immunity, which recommended vaccination for those previously infected.⁹

Today, there is more evidence suggesting relevant differences between natural and vaccine-induced immunity, (as well as hybrid immunity). Protection from either form of immunity wanes over time (and as new variants of the pathogen emerge), and some evidence suggests that there may have been differences in the waning period for different forms of immunity. One study found that after several months following an immunity-conferring event (i.e. vaccination or infection), protection over time waned more/faster after two doses of vaccination than after natural

infection. However, hybrid immunity was also found to be protective and superior to natural immunity alone.¹⁰

There is also further evidence about the comparative benefits of these different forms of immunity. One study with over 300'000 participants paints a complex and evolving picture of the comparative benefits of vaccine-induced, natural, and hybrid immunity during the pandemic. Two findings are particularly notable. First, the study found that natural immunity offered “stronger and longer-lasting protection against infection, symptoms, and hospitalization compared to vaccine-induced immunity”.¹¹ Second, whilst hybrid immunity offered “greater protection against new and severe infections than natural immunity” during the Delta period of the pandemic, this effect was not sustained in the Omicron period.¹¹ However, across both periods the “protective effect of hybrid immunity in preventing infection progression to severe COVID-19 significantly exceeded that of natural immunity”.¹¹ The benefits of hybrid immunity have also been supported elsewhere.¹²

Accordingly, although they may share some immunological mechanisms, there is evidence to suggest some differences between the protection afforded by natural immunity, vaccine-induced immunity, and hybrid immunity at different points across the COVID-19 pandemic. To assess the implications that such differences should have for vaccine policy, we must now turn to an ethical question at the heart of the petition; how much must governments seek to protect public health in order to adequately discharge their duty of care towards their citizens?

The Ethical Question

The petition raises this issue in more specific legal terms - What is a ‘legitimate government interest’ in a pandemic, and what is it for a public health measure to be ‘substantially related’ to that purpose?

The interpretation of these terms is important because they can be interpreted in a way that would support the imposition of a vaccine mandate on those with natural immunity. Suppose one maintains that the government may legitimately aim to *maximise* the protection of the population in a pandemic, and that there is evidence to suggest that hybrid immunity would secure the strongest immune protection. If so, imposing a vaccine mandate on individuals with natural immunity could plausibly be substantially related to the government’s purported legitimate interest – the mandate might be necessary for securing hybrid immunity.

The problem with this argument is that it adopts a myopic view of a government’s legitimate interests in a pandemic. Ethically legitimate public health policy should not simply do whatever it takes to maximise public health; instead, it should strike an appropriate balance between the

value of public health, and other crucial societal values, such as liberty and well-being. To illustrate the point further, consider the decisions that many policy-makers faced about whether to ease lockdown restrictions whilst COVID-19 still posed a public health threat. Of course, a simple maximising approach to public health would speak straightforwardly against the easing of lockdowns whilst the virus posed a threat. However, the point we are making here is that this issue was not a straightforward policy decision; it was instead a decision that called for a delicate balance between the reasons to adequately protect people from COVID-19, but also the reasons to minimise the significant impositions on individual liberty that lockdowns involved, and the harms they caused.

How can policy makers seek to strike a balance between these sorts of competing values? One strategy they can adopt is to limit the use of coercive public health interventions to those that are not only necessary for achieving a sufficient level of immunity, but that also only involve costs that are proportionate to that goal. For example, in 2020, one of us argued that vaccine mandates in COVID-19 could be justifiable if, “the threat to public health is grave, the confidence in safety and effectiveness is high, the expected utility of mandatory vaccination is greater than the alternatives, and the penalties or costs for non-compliance are proportionate”.¹³ However, the point extends more generally; decisions about imposing any significant restriction in order to protect public health should be informed by similar considerations. Moreover, where possible, policy-makers should make fine-grained judgments about the necessity and proportionality of such measures. As we shall detail, this has important implications for the topic we are considering here.

If the government only has a legitimate interest in pursuing a sufficient threshold of immunity using measures that are both necessary and proportionate, what does that mean for natural immunity exemptions?

Imposing mandates on those with natural immunity could still be justifiable on this approach; however, this will be much rarer than on a maximising approach to immunity. The reason for this is that seeking to secure hybrid immunity with a coercive public health intervention will only be proportionate if the additional public health benefit of hybrid immunity (over simple natural immunity alone) is sufficient to outweigh the substantial liberty costs associated with vaccine mandates, and the risks attending vaccination. Moreover, requiring those with natural immunity to also be vaccinated may be understood to require them to contribute more to the public good, if they already have substantial individual protection because of their natural immunity.

This highlights the importance of making fine-grained judgments about proportionality and necessity when considering vaccine mandates. The claim (which we simply assume here for the sake of argument) that imposing a vaccine mandate on individuals without any form of immunity was proportionate, does not entail that similarly imposing a mandate on

individuals with natural immunity must also have been proportionate. In the first case, we are considering the extent of the benefit of individuals gaining some form of immunity rather than none; in the second, we are considering the extent of the benefit of individuals gaining hybrid immunity rather than just natural immunity alone. The two benefits are thus not the same; establishing that the latter is proportionate to the costs of a mandate thus requires further argument than that which established the proportionality of a mandate for the unvaccinated.

Hybrid immunity is clearly relevant on a maximizing approach to immunity. However, on an approach to public health ethics that emphasises principles of necessity and proportionality, much more argument is needed to establish that hybrid immunity can be invoked to ethically justify imposing a mandate on those with natural immunity.

Lessons For the Future

The evidence now available suggests that the relationship between natural immunity, vaccine-induced immunity and hybrid immunity is not straightforward. By refraining from allowing natural immunity exemptions to vaccine mandates in the pandemic without a clearly stated, scientifically-grounded ethical justification, those imposing them arguably did not adequately attend to these nuances. Restrictions of liberty might sometimes be justifiable in a pandemic – however, if such measures are deployed, then they must actually be justified, and the justification should be clearly provided to citizens. In the case of COVID-19 vaccine mandates that did not allow for natural immunity exemptions, we suggest that this was often not the case.

We are likely to face another pandemic in the future. One lesson we can draw out here is that if future pandemics necessitate the imposition of vaccine mandates, then those seeking to justify them should clearly articulate the relevance (and the evidence for) the comparative protection of vaccine vs natural vs hybrid immunity. Any mandate that requires vaccine-acquired immunity needs to make a case for why other forms of immunity are not sufficient. Such a case could be made, if the comparative benefits of vaccine-induced and/or hybrid immunity far exceed those afforded by natural immunity, or if the “rescue” performed by those already immune being vaccinated is “easy”.¹⁴ But the case should be made if the mandate is to be publicly justifiable and safe from challenge.

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