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The Dizziness of Freedom: Understanding and Responding to Vaccine Anxieties.

Abstract

The rise in vaccine hesitancy in high-income countries has led some to recommend that certain vaccinations be made compulsory in states where they are currently voluntary. In contrast, I contend that legal coercion is generally inappropriate to address the complex social and psychological phenomenon of vaccine anxieties. I note that historical experience of mandatory vaccination in the United Kingdom (UK) indicates that coercion may exacerbate such anxieties. I utilise a psycho-social dialectic methodology that the Frankfurt School philosopher, Theodor Adorno, employed within his research into anti-Semitism, to examine the social conditions which have influenced vaccine anxieties. I identify many of the same psychological tricks that Adorno detected within anti-Semitic discourse within anti-vaccination discourse. I contend that education is a preferable policy response than compulsion, but note that education concerning the facts about vaccines may backfire by entrenching vaccine anxieties. I argue that educating people about the psychological reasons why they may invest in anti-vaccination discourse may alleviate such anxieties.

Keywords: Vaccinations, Vaccine Hesitancy, Anti-Vaccination Ideology, Psycho-Social Dialectic, Theodor Adorno

Introduction

The attitudes that people have concerning vaccines are infused with politics, social values and cultural norms.¹ There has been a rise in the proportion of the population that is sceptical about vaccines in high-income countries.² Vaccination uptake was stagnating or declining in many states³ prior to the Covid-19 pandemic. For example, a decline was reported in the uptake of all recommended pre-school vaccines⁴ within England in 2019.⁵ Similarly, between 2009 and 2018, 27 of the 50 United States (US) states experienced a drop in the percentage of vaccinated kindergarten age children.⁶ The World Health Organization (WHO) declared vaccine hesitancy to be a global health threat in 2019.⁷ The influence of anti-vaccination ideology and access and delivery issues have been identified as possible explanations for declines in vaccination uptake.⁸ In respect of the former, conspiracy theories, including anti-vaccination sentiment, have proliferated during the Covid-19 pandemic.⁹ I evaluate several potential policy responses which are available to governments to address vaccine anxieties. I argue that legal coercion is generally inappropriate to address the complex social and psychological phenomenon of vaccine anxieties. The historical experience of compulsory vaccination in the United Kingdom (UK), in the nineteenth century (which was enforced via fines), indicates that such coercion may backfire, as compulsion galvanised the anti-vaccination movement.¹⁰

I adopt a novel approach, within this article, by employing a psycho-social dialectic methodology, derived from the Frankfurt School philosopher Theodor Adorno's

research into anti-Semitism, to examine the broad social and psychological factors which have influenced contemporary anxieties about vaccines. I contend that some of these factors, such as neo-liberal ideology and aspects of postmodern philosophy, ought to be resisted and challenged, as they have influenced an over emphasis on individual autonomy, resulting in the relational principles of biomedical ethics being neglected,¹¹ thereby undermining the solidarity which underpins vaccination systems. Adorno believed that making people aware of the numerous psychological tricks that he identified within anti-Semitic discourse,¹² was a means of countering racial prejudice. I identify many of the same psychological tricks, which Adorno detected within anti-Semitic discourse, within anti-vaccination discourse. Those who advocate education as a policy response to vaccine anxieties are often quite vague¹³ and studies suggest that education about the facts concerning vaccines (such as the risks of vaccinations) may backfire by entrenching vaccine hesitancy.¹⁴ Ideology contains both discursive (relating to discourse) and affective (related to moods, feelings and emotions) components.¹⁵ I contend that educational interventions should focus on the psychological reasons why people may invest in anti-vaccination discourse (the affective dimension of ideology). My distinctive argument is that making people aware of the psychological tricks used within anti-vaccination discourse may render them resilient to such discourse. My argument will be of interest to policymakers and academics in both medicine and law.

Vaccination Confidence and Uptake

As mentioned in the introduction, an increasing proportion of the population in high-income countries are sceptical of vaccines¹⁶ and vaccination uptake was stagnating

or declining in many states, such as the US and UK, prior to the Covid-19 pandemic. Public Health England (an executive agency of the UK Department of Health and Social Care) warn that speculation that anti-vaccination ideologists have influenced the decline in vaccination uptake in England¹⁷ could become a self-fulfilling prophecy.¹⁸ Public Health England and NHS England (a non-departmental public body) contend that other factors may be responsible, such as inaccurate records, commissioning issues, lack of standardization of reminders and access issues.¹⁹ Studies in both the US²⁰ and the UK²¹ have determined that access and delivery issues have affected vaccination uptake. Nonetheless, both Public Health England and NHS England note that anti-vaccination views have impacted vaccination rates in other countries.²² The increased spread of anti-vaccination sentiment during the Covid-19 pandemic may heighten anxieties about vaccines and hamper efforts to tackle reduced uptake.

The Danish existentialist philosopher, Søren Kierkegaard, described anxiety as the “dizziness of freedom”.²³ This means that the freedom to choose can be disconcerting. As vaccinations for children in some states (such as Austria, Denmark, Ireland, Finland, New Zealand, Spain and the United Kingdom) are not compulsory, parents have the freedom to vaccinate their children, or not. Anxiety is often portrayed negatively, but it may mean a striving for something.²⁴ Some parents are anxious to vaccinate their children, and for other children to be vaccinated, to protect them from diseases. Consequently, vaccination is not simply imposed on the public, rather it is also demanded of the government and of fellow citizens.²⁵ By contrast, other parents are hesitant to vaccinate their children, as they are worried about the safety of vaccines. In complex modern societies, it is increasingly difficult for non-experts to know whether

ideas are nonsense or not.²⁶ In addition, Adorno noted that ambivalent individuals may be receptive to emotional reorientation and irrational ideologies.²⁷ Vaccination decisions are influenced by local and national circumstances and culture.²⁸ It has been argued that vaccine hesitancy is on a continuum as it may relate to one or all vaccines.²⁹ By contrast, Patrick Piretti-Watel et al contend that positing that vaccine views are on a continuum between pro-vaccination and anti-vaccination views is inappropriate and may lead to misunderstandings.³⁰ The vaccination decisions of parents are complex and multidimensional.³¹ Although some people may be amenable to reconsidering their views about vaccines, others, as Adorno noted of some ideologists, are unlikely to “let anything get through to them”.³² Isabel Rossen et al’s research indicates that individuals categorised as fence sitters are more likely to be persuaded than individuals categorised as vaccine rejecters and that adversarial approaches may undermine trust (in the authorities that provide vaccinations) among the latter.³³

Policy Responses

There are several potential policy responses that governments could utilise in an effort to address vaccine hesitancy and dwindling vaccination rates. One option is making some vaccinations compulsory. The penalties for non-compliance could be fines (which is the penalty for non-compliance in Slovenia) or imprisonment, or unvaccinated children could be precluded from enrolling at school (which is the penalty in states such as Australia, France, Italy and the US, although exemptions may be applicable). In the UK, Matt Hancock (Secretary of State for Health and Social Care from 2018 onwards) stated that the government was seriously considering compulsory

vaccination in September 2019,³⁴ but this was swiftly contradicted by the Prime Minister's Office (Number 10).³⁵ Nicola Glover-Thomas argues that the UK's voluntary vaccination programme may no longer be enough to protect against the risk of infection³⁶ and Emma Cave argues that security (for example, if there is a vaccine preventable pandemic) and public health arguments may justify restrictions to vaccination choices.³⁷ Some medical professionals contend that the UK government should make some vaccinations compulsory.³⁸ There have also been debates about making vaccinations compulsory in other states where they are not currently mandatory, such as Ireland³⁹ and Austria.⁴⁰ The policy of compulsory vaccination has been justified using jurisprudential and ethical theories. For example, the natural law scholar, John Finnis, contends that coerciveness alone is not a sufficient objection to compulsory vaccination programmes as the subsistence of a community depends on upholding aspects of public good.⁴¹ Drawing on John Rawls' theory of justice as fairness,⁴² Alberto Giubilini contends that fairness is an important ethical value "when it comes to sharing burdens required by the preservation of public goods" and justifies unqualified compulsory vaccination.⁴³ Elsewhere, Giubilini et al argue that ethical theories, such as utilitarianism and contractualism, and a collective duty of easy rescue, support a moral obligation to be vaccinated.⁴⁴ Glover-Thomas and Soren Holm argue that where some people choose to vaccinate their children in order to reduce community risk, this creates a reciprocal duty among others.⁴⁵ Glover-Thomas has also countered arguments against compulsion, based on individual rights and the violation of personal autonomy, on the grounds that public health justifies limits to both.⁴⁶ The problem with compulsion is not its coercive nature per se, but the potential consequences of its adoption. Nonetheless, as Benedict de Spinoza contended (in contrast to Thomas Hobbes' coercive command theory of law⁴⁷):

“in any form of state the laws should be so drawn up that people are restrained less by fear than hope of something good which they very much desire; for in this way everybody will do his duty willingly”.⁴⁸

Thus, in Spinozian terms, it would be better for people to want to vaccinate their children due to a hope for the common good that this would achieve than from a fear of the legal consequences of not doing so.

The potential deleterious consequences of making some vaccinations compulsory are evident from the historical experience, in the UK, of the series of statutes, in the nineteenth century,⁴⁹ which made smallpox vaccination compulsory for infants.⁵⁰ Such legislation galvanised the anti-vaccination movement in the UK⁵¹ and made subsequent governments reluctant to make vaccinations compulsory.⁵² The resentment caused by compulsory smallpox vaccination contrasts with the success of voluntary diphtheria vaccination, which was introduced in the UK during the Second World War.⁵³ The lesson that many drew from the experience of compulsory vaccination in the UK, in the nineteenth century, was that there are limits to what legislation can achieve.⁵⁴ By contrast, both France⁵⁵ and Italy⁵⁶ have made some vaccinations compulsory in recent years, which has led to a rise in vaccination uptake in both states. By contrast, coverage rates have fallen in Croatia despite mandatory vaccinations.⁵⁷ Daniel Salmon argues that mandates are a quick fix and that addressing the underlying causes of faltering uptake is needed to achieve stable uptake rates.⁵⁸ Andrea Kitta’s research found that some Canadians who support

vaccinations may question that support if they encounter proposals of making it mandatory.⁵⁹ In addition, the penalties associated with compulsion may disproportionately impact disadvantaged groups and exacerbate inequalities in child health.⁶⁰ My contention is that education is preferable to compulsion, but I acknowledge that the latter may be appropriate in certain circumstances (for example, during a pandemic, as Cave suggests⁶¹).

Some scholars argue that tort law could have a role to play where people have suffered harm as a result of parents decisions not to vaccinate their children,⁶² but it may be difficult to establish causation in such cases.⁶³ Providing parents with incentives, such as tax rebates or direct payments, is another proposed policy.⁶⁴ However, a UK study found that parents and carers of young children and professionals viewed financial incentives to vaccinate as inappropriate.⁶⁵ In addition, an Australian study found financial penalties to be an ineffective strategy in changing the behaviour of vaccine-refusing parents.⁶⁶ In the US, many physicians dismiss families which refuse child vaccinations, which as Douglas Diekema notes, may have negative health impacts.⁶⁷ Ross Silverman and Lindsay Wiley have determined that tactics which leverage shame and social exclusion to promote vaccination may degrade public trust.⁶⁸ A more stringent approach to media regulation, in relation to information about vaccines, could be beneficial, but banning content, for example on the internet, may be problematic.⁶⁹ I contend that improved education is a preferable means of addressing vaccine hesitancy. In the following sections, I draw on the psycho-social dialectic methodology, developed by Adorno, to contend that such education should include consideration of the psychological reasons that people may invest in anti-vaccination ideology.

Psycho-Social Dialectic

The philosophers within the Institute for Social Research at Goethe University, Frankfurt (known as the Frankfurt School), whose work was influenced by Marxist philosophy, Weberian sociology and Freudian psychology, rose to prominence during the European interwar period (1918-1939). In addition to Adorno, famous members of the Frankfurt School include Max Horkheimer, Erich Fromm, Herbert Marcuse and Jurgen Habermas. The members of the Frankfurt School produced several studies concerning anti-Semitism. There are similarities between the members of the Frankfurt School's work on anti-Semitism and other influential studies of the subject by Hannah Arendt⁷⁰ and Jean-Paul Sartre.⁷¹ However, the reception of the Frankfurt School's theoretical output on this topic has been marginal.⁷² George Cavelleto argues that the psycho-social tradition, of which the Frankfurt School were part, fell into disarray in the 1950s.⁷³ Nonetheless, there are similarities between the Freudo-Marxism of the Frankfurt School and the Lacanian left (scholars such as Slavoj Zizek and Yannis Stavrakakis),⁷⁴ who utilise the psychoanalytic theory of Jacques Lacan to examine modern society. In addition, Shannon Mariotti argues that Adorno's work anticipated the increased focus on emotions in subsequent social and cultural theory, which she describes as the "affective turn".⁷⁵ The renewed "politics of unreason" within contemporary societies demonstrates the continued relevance of the Frankfurt School's research concerning anti-Semitism.⁷⁶

The Frankfurt School's members were forced into exile, in the US, during the Nazi regime's reign in Germany (1933-1945). They received funding to undertake research

into anti-Semitism in the 1940s. Adorno adopted the methodology of a psycho-social dialectic⁷⁷ in his first analysis of anti-Semitic psychology,⁷⁸ his book '*The Psychological Technique of Martin Luther Thomas' Radio Addresses*'.⁷⁹ The book remained unpublished until 1975, six years following Adorno's death in 1969.⁸⁰ Nonetheless, it influenced his colleagues, Leo Lowenthal and Norbert Guterman, who wrote a book about fascist agitators,⁸¹ which in turn influenced studies into conspiracy theories.⁸² A content analysis of the speeches of anti-Semitic and fascist agitators was the first part of the Frankfurt School's research project into anti-Semitism.⁸³ The second part was to involve the production of an anti-agitational handbook, which never came to fruition.⁸⁴ In addition, Adorno and Horkheimer actively sought to make a Hollywood film, to educate people about anti-Semitism, but ultimately abandoned such efforts.⁸⁵

The Thomas book differs from Adorno's more famous work on anti-Semitism, '*The Authoritarian Personality*', which he co-wrote with some US scholars. In the authoritarian personality study, the F scale was developed "to measure the potentially antidemocratic personality".⁸⁶ Cornelia Betsch et al have developed a similar scale to assess the psychological antecedents of views about vaccinations.⁸⁷ In unpublished remarks, Adorno noted that the focus of the authoritarian personality study is on subjective reactions rather than objective stimuli.⁸⁸ In Adorno's view, the study thereby reversed the manner of causation.⁸⁹ By contrast, in the Thomas book, Adorno uncovered the objective social conditions of late modernity in the ostensibly subjective phenomena of propagandistic manipulation.⁹⁰ Adorno contended that "the success of any attempt to fight anti-Semitism depends largely on knowledge of the social and psychological genesis of its various species".⁹¹ I utilise Adorno's innovative psycho-

social dialectic methodology to analyse several factors, in subsequent paragraphs, which have been important in the genesis of vaccine hesitancy and to explain how anti-vaccination ideologists have exploited such factors.

One factor is the economic and ideological changes wrought by neo-liberalism. Adorno diagnosed an increase in reification (the “misrecognition of reality due to social causes”⁹²) within late (monopoly) capitalism. Reification causes estrangement, whereby people become strangers or enemies to one another.⁹³ Estrangement is the opposite of solidarity, which “signifies shared practices reflecting a collective commitment to carry ‘costs’ (financial, social, emotional, or otherwise) to assist others”.⁹⁴ Vaccination systems are underpinned by such solidarity, as they require parents to ensure that their children are vaccinated to prevent disease, and may be undermined by reification, which causes individuals to erroneously view themselves as self-sufficient and autonomous.⁹⁵ Adorno identified several modes of reification including instrumental rationality (social reification), whereby means become ends in themselves.⁹⁶ Adorno believed that instrumental rationality had a negative impact on the psyche of subjects. According to Sigmund Freud, the psyche comprises the id (instinctual desires), the superego (self-critical consciousness) and the ego (which mediates between the former two).⁹⁷ Adorno criticised Freud for conceptualizing the ego as fixed rather than contingent.⁹⁸ In Adorno’s view, the autonomous personality structures (characterised by strong egos) which were predominant in the early stages of capitalism (entrepreneurial capitalism) had been replaced with the submissive authoritarian personality structures (characterised by weak egos) of late capitalism.⁹⁹

Adorno believed that instrumental rationality produced a collapse of ego rationalism and an upsurge of irrational and self-destructive id impulses.¹⁰⁰ According to Adorno, the rationalization of society, evident in the shift from entrepreneurial to monopoly capitalism, had engendered the de-rationalization of the psyche,¹⁰¹ rendering people more susceptible to irrational ideologies, such as anti-vaccination ideology. Adorno contended that people perceived themselves as “at the mercy of society” and no longer the masters of their economic fates, but rather the “object of huge blind economic forces”.¹⁰² Such feelings, which have been exacerbated by changes within the neo-liberal era (such as deregulation, financialisation and privatisation), make people ripe for emotional manipulation.¹⁰³ For example, studies have demonstrated an association between feelings of disaffection and alienation and belief in conspiracy theories.¹⁰⁴ Arendt, like Adorno, noted that social atomization and extreme individualization influenced mass movements,¹⁰⁵ which both believed people participated in as a substitute gratification for unfulfilled social needs.¹⁰⁶ If someone feels as though they are not in control, the belief that someone else (the enemy identified by the movement) is acts as a compensatory control mechanism.¹⁰⁷

Anti-vaccination ideologists have exploited both the economic and ideological changes in high-income countries in the neo-liberal era. In terms of the former, changes to the production of vaccines have included an increase in patents, the privatisation of vaccine institutes and the development of vaccines unrelated to infectious diseases.¹⁰⁸ Anti-vaccination ideologists cite such developments to contend that pro-vaccinators views are tainted by monetary considerations.¹⁰⁹ However, many anti-vaccination ideologists champion quack remedies, such as chelation therapy (a procedure to remove heavy metals from the body), for autism, which they contend is

caused by vaccines. Such ideologists may have financial interests in such quack remedies.¹¹⁰ In terms of the ideological changes wrought by neo-liberalism, the neo-liberal view of the individual as sovereign¹¹¹ has led to increased emphasis on medicine being personalised and individualised¹¹² and an increased emphasis on patient choice within government discourse. Such discourse reifies individuals, by treating them as autonomous, and has undermined appeals to a collective commitment to sustain herd immunity (the notion that if a sufficient number of people are vaccinated, this will disrupt the transmission of an infectious disease).¹¹³

The influence of post-modernism is another factor. Research has shown a link between post-material views and anti-vaccination sentiment.¹¹⁴ In postmodern thought, science and philosophy are conceived as “just another set of narratives”.¹¹⁵ The postmodern emphasis on competing discourses has been exploited by anti-vaxxers.¹¹⁶ Anti-vaccination ideologists often denigrate scientific studies (and the scientific method in general), while simultaneously craving scientific legitimacy for their theories that vaccines are harmful.¹¹⁷ Thus anti-vaccination ideology evinces both a postmodern scepticism of science and an effort to mimic science.¹¹⁸ For example, the Slovenian anti-vaccination ideologist, Mateja Cernic, contends that science is just one discourse among others,¹¹⁹ but also emphasises the importance of verifiability (which is a key concept in the philosophy and practice of science).¹²⁰ Adorno would reject the postmodernist notion of science and philosophy as merely being narratives, as it is predicated on a view of language which fails to recognise the indissociable unity between concept and thing.¹²¹ In contrast to some postmodernist philosophers, Adorno did not question well warranted science, although he thought that employing

abstraction and objectification, which are essential to science, outside of the scientific realm could exacerbate social alienation.¹²²

Another aspect of postmodern thought, which has influenced anti-vaccination ideologists and vaccine hesitant parents, is its emphasis on particularity, specifically in respect of children.¹²³ As children are viewed as unique,¹²⁴ there is a scepticism of vaccination schedules, which are general and treat children alike. As Bernice Hausman notes, vaccine hesitant parents “take the distinctive and differentiated self seriously as the focus of a personal (or familial) biopolitical project”.¹²⁵ Adorno would view the sole focus of postmodern scholars on the particular as misguided as “neither one [the particular and the universal] can exist without the other”.¹²⁶ Another link between postmodern theory and anti-vaccination ideology has been identified by Anna Kata. Kata contends that the postmodern era is characterised by a preoccupation with risks over benefits.¹²⁷ Although some argue that the focus on risk in understanding vaccine hesitancy is misplaced,¹²⁸ it is a relevant consideration as many parents think they are best placed to analyse risk.¹²⁹ The problem is that some view educating the public towards a “correct” understanding of “real” risks as key.¹³⁰ Studies suggest that such messages are ineffective in promoting vaccination intent¹³¹ and may backfire.¹³² In addition, a US study determined that appealing to the general social benefits of vaccination, such as herd immunity, is ineffective in enhancing the intent of parents to vaccinate.¹³³ Nevertheless, another US study indicates that messages concentrating on the dangers of not vaccinating, rather than vaccine safety, may be effective.¹³⁴ A further US study suggests that messages concerning affective gains (for example, less anxiety) may also be beneficial.¹³⁵ Consequently, scholars, such as Andrea Grignolio, contend that confrontations with anti-vaxxers should focus on emotions.¹³⁶ I draw on

Adornian theory to devise a comprehensive strategy, to educate people about the affective reasons why they may invest in anti-vaccination discourse, to immunize them from such discourse.

Hausman has utilised postmodern theory to contend that vaccine hesitant parents are not irrational, scientifically illiterate or irresponsible citizens.¹³⁷ Rather, in hesitating to medicalise their children, and seeking independent information about vaccines and their ingredients, Hausman contends that they are practicing good biological citizenship in the twenty-first century.¹³⁸ Hausman's argument draws on Nikolas Rose's concept of ethopolitics.¹³⁹ This is concerned with "the self-techniques by which human beings should judge and act upon themselves to make themselves better than they are".¹⁴⁰ Hausman's argument suffers from several problems. Firstly, she ignores Rose's argument about governments attempting "to shape the conduct of human beings by acting upon their sentiments, beliefs and values- in short by acting on ethics".¹⁴¹ Governments want citizens to vaccinate their children, hence, in ethopolitical terms, vaccine hesitancy is a failure of governance. Secondly, the influence of postmodern philosophy has meant that some scholars regard communicating in a realist mode about scientific concepts as illusory.¹⁴² Hausmann draws on Roberto Esposito's metaphor, that the distinction between antigens (foreign substances which induce an immune response in the body) and antibodies (blood proteins which counteract antigens) is meaningless, to contend that the distinctions between different biological entities is illusory.¹⁴³ However, Hausman communicates in a realist mode about the more abstract alleged biopolitical and ethopolitical epochs that she identifies. Thirdly, Hausman ignores the fact that the allegedly dominant ethopolitical norms may be resisted and challenged by other norms, such as residual

norms.¹⁴⁴ The high public confidence in vaccines in many states, such as European Union (EU) member states,¹⁴⁵ indicates that what Rose characterises as the collectivism of biopolitics,¹⁴⁶ which can be characterised as a residual norm, is still important in relation to vaccines.

The other objective social factors that have been cited as influencing vaccine hesitancy, within existing literature, include the rise in populism,¹⁴⁷ conspiratorial thinking,¹⁴⁸ and social movements (such as environmentalism, which have challenged governmental authority).¹⁴⁹ The Dunning-Kruger effect (whereby people overestimate their own cognitive ability)¹⁵⁰ and omission bias (the tendency to favour an act of omission over one of commission)¹⁵¹ are psychological explanations for vaccination attitudes, within existing literature. Relevant laws, such as whether vaccines are mandatory and compensation schemes for vaccine damage, may also generate and feed into public anxieties. For example, anti-vaccination ideologists denigrate the US National Childhood Vaccine Injury Act 1986, which set up the Vaccine Injury Compensation Programme (VICP), for indemnifying vaccine producers.¹⁵² Anti-vaxxers have cited cases where claimants have succeeded, such as the US Hannah Poling case,¹⁵³ as evidence that vaccines are unsafe.¹⁵⁴ The UK Vaccine Damage Payment Scheme (VDPS), established by the Vaccine Damage Payments (VDP) Act 1979, provides a payment of £120,000,¹⁵⁵ to eligible claimants who are, on the balance of probabilities,¹⁵⁶ severely disabled (the requirement is 60% disability¹⁵⁷) by vaccinations. The VDP Act 1979 has been criticised as a “piecemeal, reactive and...incoherent” measure.¹⁵⁸ There are concerns that the VDPS’ stringent eligibility criteria may be undermining confidence in vaccines.¹⁵⁹ I recommend that the VDPS be reviewed. In states without compensation schemes for vaccine damage, such as

Australia, Canada (with the exception of Quebec) and Ireland, there are concerns about the potential costs of such schemes and fears that they could undermine confidence in vaccines.¹⁶⁰

The traditional media (television and newspapers) have influenced vaccine anxieties by providing a platform for anti-vaccination ideologists.¹⁶¹ For example, Paul Offit argues that the US media has been willing to provide a platform for any celebrity (such as Jenny McCarthy and Jim Carey) who wants to scare parents about vaccines.¹⁶² In the UK, the Science Media Centre was established, in 2002, to renew public trust in science and has assisted journalists in navigating stories pertaining to vaccines.¹⁶³ The internet and social media have enabled anti-vaccination ideologists to disseminate their ideas more widely and facilitate the formation of on-line communities “where conspiracies and similar theories can flourish without constraints”.¹⁶⁴ Social media is associated with a negative impact on public views regarding vaccinations, but is also a potential means of addressing vaccine hesitancy.¹⁶⁵ Anti-vaccination networks on the social media website Facebook have become highly entangled with networks of undecided people, whereas pro-vaccination networks are more peripheral.¹⁶⁶ Social media companies benefit from the revenue generated from the followers of on-line anti-vaxxers.¹⁶⁷ Research reveals that viewing typical vaccine critical websites for only five to ten minutes increases the perception of risk regarding vaccinations and decreases the perception of risk regarding the omission of vaccinations as compared to visiting a control site.¹⁶⁸ A Royal Society for Public Health (RSPH) study indicates that younger people are more likely to see, and believe, anti-vaccination sentiment online.¹⁶⁹ The UK government has proposed establishing the

world's first independent regulator of internet companies,¹⁷⁰ but as mentioned above regulating online content may be difficult.¹⁷¹

Psychological Tricks

Adorno argued that the best way to counter anti-Semitism was not by reference to the facts (the discursive dimension of ideology), but by making anti-Semites aware of the mechanisms which cause racial prejudice within them (the affective dimension of ideology).¹⁷² Similarly, Arendt noted that people may not necessarily be “convinced by facts”.¹⁷³ Adorno identified thirty-four psychological tricks (see Appendix 1) utilised within the anti-Semitic discourse of a US radio personality, Martin Luther Thomas.¹⁷⁴ The tricks describe various forms of manipulation that Thomas employed.¹⁷⁵ Adorno argued that there should be an “attempt to immunize the masses against these tricks”.¹⁷⁶ Similarly, my novel argument is that education about the tricks used within anti-vaccination discourse may immunize people against such ideology and is a preferable policy response to compulsory vaccination, which historical experience indicates could exacerbate such ideology. The upsurge of anti-vaccination ideology during the Covid-19 pandemic, demonstrates the importance of developing strategies to counter it. I do not believe that every psychological trick that Adorno identified is relevant for anti-vaccination ideology, as some are specific to anti-Semitism. I have analysed books authored by the following anti-vaccination ideologists: Mateja Cernic,¹⁷⁷ J.B. Handley,¹⁷⁸ Susan Humphries and Roman Bystrianyk,¹⁷⁹ Jenny McCarthy,¹⁸⁰ Tetyana Obukhanych,¹⁸¹ Andrew Wakefield¹⁸² and Brett Wilcox.¹⁸³ I have identified fourteen of the psychological tricks, that Adorno described, within their discourse, which are outlined within the following paragraphs.

The psychological tricks are as follows:

1. “Lone Wolf Trick”: The first psychological trick which Adorno identified, within anti-Semitic discourse, which is also relevant for anti-vaccination discourse, is the lone wolf trick.¹⁸⁴ Andrew Wakefield, whose retracted paper on a possible link between the measles-mumps-rubella (MMR) vaccine and autism¹⁸⁵ is regarded as the catalyst for the contemporary anti-vaccination movement, portrays himself as a lone wolf, fighting against mainstream medicine, which he describes as “the system”.¹⁸⁶ This trick draws on sympathy for the underdog¹⁸⁷ and the Galileo myth (that established opinion is frequently disrupted by maverick thinkers).¹⁸⁸ As Jonathan Howard and Dorit Rubinstein Reiss state, the idea here is that science has been wrong in the past, therefore science cannot be trusted now.¹⁸⁹
2. “Spontaneity and non-manipulated individuality”:¹⁹⁰ Anti-vaxxers often fake spontaneity and non-manipulated individuality by emphasising their emotions, such as distress and indignation, within their discourse. For example, McCarthy asks, in her book: “Why would vaccine companies believe that vaccines could be safe for all children? It’s crazy to me”.¹⁹¹ This enables anti-vaxxers to distance themselves from the perceived coldness of objective science. Adorno stated that people may be receptive to this as they desire to escape feelings of loneliness, which objectivity intensifies, when engaging with public discourse.¹⁹²

3. “Persecuted innocence”:¹⁹³ Anti-vaccination ideologists stress the personal integrity, honesty and credentials of themselves and of other anti-vaxxers within their discourse. This is also indicative of the classic propaganda tactic (which Adorno labels the sheep and bucks trick) of painting oneself as noble and one’s enemy (those who are pro-vaccine) as evil.¹⁹⁴ For example, anti-vaccinators describe pro-vaccine scientists as shells of corporations and “biostitutes”.¹⁹⁵ Projection, which describes how within the discourse of propagandists, attributes are ascribed to others (opponents), which actually characterise the propagandists themselves, was central to Adorno and Horkheimer’s analysis of anti-Semitism in the *‘Dialectic of Enlightenment’*.¹⁹⁶ The following are some examples of projection within anti-vaccination discourse: anti-vaxxers contend that pro-vaccinators are not interested in safety,¹⁹⁷ yet they are unconcerned with the morbidity/mortality caused by vaccine preventable illnesses; anti-vaxxers claim that pro-vaccination sentiment is based on emotion rather than logic, or is like a religion,¹⁹⁸ but anti-vaxxers make emotional appeals in their discourse, and cling to their views with a religious fervour; and, as mentioned above, anti-vaccine ideologists accuse pro-vaccinators of being influenced by monetary considerations, but often promote quack remedies themselves. Anti-vaxxers also portray parents, who do not vaccinate their children, as innocent. They do this by attacking herd immunity, which they misunderstand and misrepresent. For example, Wilcox erroneously states that “vaccines protect vaccine recipients but only if everyone else vaccinates”.¹⁹⁹

4. “Indefatigability”:²⁰⁰ Anti-vaccination ideologists emphasise their ceaseless efforts and sacrifices within their discourse. For example, Wakefield claims that being erased from the UK medical register was a small price to pay for the privilege of working with families affected by autism.²⁰¹ However, in focusing on the discredited link between vaccines and autism, the efforts of anti-vaccination ideologists are detrimental to families affected by autism. Peter Hotez (an American scientist whose adult daughter has autism) contends that the US anti-vaccination movement is responsible for the lack of resources for people with autism.²⁰²

5. Short Memories: In discussing the “great little man trick”, used within anti-Semitic discourse, Adorno stated that anti-Semites reckon that their audience have short memories,²⁰³ which is the fifth relevant trick that I have identified within anti-vaccination discourse. Anti-vaxxers reckon on short memories when they contend that the incidence of infectious diseases would have declined without vaccination. The World Health Assembly declared that the disease of smallpox had been eradicated in 1980 following intensive global eradication efforts.²⁰⁴ Humphries and Bystryanyk contend that “there is no evidence that vaccination had anything at all to do with” the decline and ultimate eradication of smallpox.²⁰⁵ This ignores the effort and resources (approximately \$300 million) that went into vaccinating people as part of the ‘Intensified Smallpox Eradication Program’ between 1967 and 1979.²⁰⁶

6. “Human interest stories”:²⁰⁷ Anti-vaccination ideologists rely on human interest stories within their discourse. This contrasts with the seeming coldness of objective scientific arguments. Such stories include anecdotes from parents

who claim that their children are vaccine injured. Anecdotes can be useful for science. For example, Edward Jenner's discovery of vaccination, in the 1790s, was based on anecdotes from milkmaids, who noted that exposure to the mild disease of cowpox seemed to protect against the more serious disease of smallpox.²⁰⁸ Nonetheless, scientific study is necessary to determine whether anecdotes are valid and reliable. Several studies into the purported link between the MMR vaccine and autism have found no causal association.²⁰⁹ In addition, the recipient's libido is satisfied when they are treated as an insider.²¹⁰ For example, Wilcox distinguishes between "vaccine believers" (those who, in his view, uncritically accept that vaccinations are good), "vaccine sociopaths" (those scientists who he alleges secretly know that vaccinations are harmful) and the "vaccine informed" (those who, he contends, have learned that vaccines are harmful).²¹¹ The ascription of "vaccine informed" status to recipients of anti-vaccine discourse may make them feel part of a superior community which eschews received wisdom. Some recipients may feel as though they have been "let in" and "taken into confidence".²¹² As Adorno noted of fascist propaganda, "the follower, simply through belonging to the in-group is better, higher and purer than those who are excluded".²¹³

7. "The flight of ideas":²¹⁴ This describes how, within their discourse, anti-vaccination ideologists pretend that they are engaging in argument, but they have already arrived at their conclusions, namely, that, in their view, vaccinations are harmful. For example, Wakefield and Cernic both claim, early on in their respective books, that there is a possible link between the MMR vaccine and autism.²¹⁵ However, by the end of their respective books, their

arguments have changed, as they are both unequivocal that vaccines cause autism.²¹⁶ There is no explanation offered as to why a possibility has become a certainty. The authors are presumably hoping that enough arguments intended to inculcate uncertainty among their audiences will suffice.

8. “Good old time”:²¹⁷ This refers to the emphasis on the old fashioned within both anti-Semitic discourse and anti-vaccination discourse. As Kata notes, this designates something “natural” as being inherently good or right, while what is “unnatural” is bad or wrong.²¹⁸ According to this logic, which is set out in Obukhanych’s book,²¹⁹ vaccines are unnatural and therefore bad,²²⁰ whereas acquiring immunity from diseases is natural and therefore the better approach.²²¹ Such flawed logic overlooks the higher risks from natural infection while fixating on comparably minute risks from vaccination.²²²

9. “Fait accompli”.²²³ This refers to statements which are made by propagandists, as though a matter has already been decided, for example by stating that a large group of people cannot be wrong. This is evident in McCarthy’s foreword to Wakefield’s book, in which she states that:

“You hear this story [about children purportedly developing autism after vaccinations] once, it’s disturbing, a dozen times it starts to feel like a pattern, a thousand times and you begin to wonder why this is still a debate”.²²⁴

However, as noted above, studies into a potential link have found no causal association.

10. “Last hour device”:²²⁵ Similarly to anti-Semites, and conspiracy theorists more generally,²²⁶ anti-vaccination ideologists employ apocalyptic terms²²⁷ in an attempt to convince their audience that it is the eleventh hour and that they must act immediately to prevent impending evil. They contend that rates of autism have increased and will continue to do so unless action is taken against vaccines. For example, Wilcox contends that: “the holocaust is here. It’s now. It’s real”.²²⁸ This purported rise in autism is designed to play on the fears of their audience. Although statistics suggest that autism has increased, this statistical variation is attributed to more accurate and expansive diagnoses of autism.²²⁹ In response, anti-vaccination ideologists claim that, if this is true, there is an absence of older people living with autism.²³⁰ However, surveys indicate similar rates of autism in children and adults.²³¹

11. “The black hand (feme) device”:²³² Although anti-vaccination ideologists portray themselves as tirelessly seeking to uncover the truth and wanting to engage in a debate about vaccinations, they themselves brook no dissent. For example, in anti-vaccination groups on social media, pro-vaccination sentiment is deleted and people with pro-vaccination sentiments are banned.²³³ However, the variety of claims and stances on vaccination is multifarious and often contradictory and internal debates and disagreements are conspicuously absent from anti-vaccination ideology. For example, when Wakefield posited a link between the MMR vaccine and autism, in 1998, he recommended that the

triple vaccine be replaced by single vaccines for measles, mumps and rubella. It later emerged that Wakefield had patented a single measles vaccine.²³⁴ He would therefore have benefited financially if the triple vaccine had been replaced by single vaccines. In contrast, other anti-vaccination ideologists, such as Wilcox, would not recommend any vaccines, but still praise Wakefield.²³⁵

12. “Anti-institution trick”:²³⁶ Anti-vaccination ideologists seek to exploit the potential dislike of institutions among their audience. Their discourse may appeal to people with differing political views. For example, in criticising the state (government) and state institutions (such as those involved in the regulation of medical technology) anti-vaccination ideologists appeal to those with libertarian and conservative views (who favour a small state). In criticising the pharmaceutical companies, which develop and supply vaccines, anti-vaccination ideologists appeal to anti-capitalist sentiment.

13. “If you only knew”:²³⁷ Similarly to anti-Semitic discourse, there is much innuendo of hidden evil within anti-vaccination discourse. Anti-vaccination ideologists endeavour to exploit the negative associations that people may relate with certain vaccine ingredients. The ingredients that anti-vaccination ideologists have focussed on include thimerosal (a mercury-based preservative), aluminium (which is used, in some vaccines, as an adjuvant to boost the body’s response to vaccine) and formaldehyde (which is used to prevent contamination by bacteria) in an effort to increase anxieties about vaccines. Many of these ingredients have been used in vaccines since the 1930s. Anti-vaccination ideologists claim that the increased number of vaccines

given to children explains a purported causal link between such vaccines and illness (such as autism).²³⁸ Many of these ingredients are already present in the body (for example, there is more formaldehyde in the body than in vaccines) and material ingested into the body, such as food (for example, infants will ingest more aluminium from breast milk than they will receive from vaccines in the first six months of their life²³⁹). There is no evidence that the small amounts of these ingredients that are contained in some vaccines are harmful.

14. “Democratic cloak”:²⁴⁰ Adorno noted that the authoritarianism of Thomas was different to the authoritarianism of the Nazis in Germany.²⁴¹ Whereas German Nazis were openly critical of democracy,²⁴² the American attack on democracy was done in the name of democracy.²⁴³ Anti-vaccination ideology is akin in that a tactic of anti-vaxxers is to try to shift the debate into an ethical/legal discussion about freedom and rights.²⁴⁴ Anti-vaccination ideologists contend that parents have the right not to vaccinate their children. They thus conceive human rights negatively (as freedom from interference). In contrast, in international law, human rights are conceptualised positively. For example, health is defined in the WHO constitution as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”.²⁴⁵ Every country in the world has ratified at least one treaty containing health related human rights.²⁴⁶ The Committee on Economic, Social and Cultural Rights, stated, within its General Comment No.14, that the human right to health, contained in Article 12 of the International Covenant on Economic, Social and Cultural Rights (ICESCR),²⁴⁷ requires states to “provide immunization against the major infectious diseases occurring in the community”.²⁴⁸

I contend that a theory and evidence-based²⁴⁹ resource (see Appendix 2), outlining these psychological tricks, in lay terms, may render people resilient to anti-vaccination ideology. However, I acknowledge that some resources can backfire. For example, Adorno helped to create cartoons to combat anti-Semitism, but they were counterproductive as respondents interpreted them as supportive of prejudice.²⁵⁰ Rob Brotherton argues that some conspiracy theorists may consider explorations of the psychological reasons that people believe such theories as an attempt to portray them as mentally unbalanced and thus worse than challenging them on the facts.²⁵¹ Nonetheless, as mentioned above, some people with vaccine anxieties may be amenable to a reconsideration of their views. I recommend that education concerning the psychological tricks should be incorporated into school curriculums, as previous studies indicate that prevention is preferable.²⁵² Whether informing people of the psychological tricks can reduce vaccine anxieties requires further study. While the specific focus of this article has primarily been on vaccine anxieties, it highlights the broader “need to increase self-awareness and self-determination that makes any kind of manipulation impossible”.²⁵³ In addition, as Adorno argued, “by making connections between ideology and socio-psychological structures” a naivety in the social climate can be eliminated and a certain detoxification can take place.²⁵⁴ In this respect, my paper highlighted the objective social factors, such as neo-liberal ideology and aspects of postmodern philosophy, which should be resisted and challenged as they have influenced the overemphasis on individual autonomy in medico-legal discourse (thereby undermining the solidarity underpinning vaccination systems) and are exploited by anti-vaccination ideologists.

Conclusion

There has been an increase in vaccine scepticism in many high-income countries and anti-vaccination sentiment has proliferated during the Covid-19 pandemic. I considered several potential policy responses. I argued that legal coercion is generally inappropriate to address some complex social and psychological issues and may risk galvanising the anti-vaccination movement. I averred that improved education is a preferable policy response, but noted that education about the facts pertaining to vaccinations may backfire. I utilised an innovative psycho-social dialectic methodology, derived from Adorno's research into anti-Semitism, to identify the objective social processes which have influenced vaccine anxieties. I identified many of the psychological tricks that Adorno found in anti-Semitic discourse within anti-vaccination discourse. I proposed that increasing public comprehension of such devices may render people resilient to anti-vaccination discourse, thereby potentially addressing dwindling vaccination rates. The original approach that I have recommended to address vaccine anxieties, within this paper, will be of interest to policymakers and academics in both medicine and law.

Appendix 1

The thirty-four psychological tricks that Theodor Adorno identified in '*The Psychological Technique of Martin Luther Thomas' Radio Addresses*' are as follows:

1. Lone wolf (p4)
2. Emotional release (p6)
3. Persecuted innocence (p10)
4. Indefatigability (p13)
5. Messenger (p15)
6. A great little man (p18)
7. Human interest (p24)
8. Good old time (p25)
9. Movement trick (p31)
10. Flight of ideas (p32)
11. Listen to your leader (p37)
12. Fait accompli (p42)
13. Unity trick (p47)
14. Democratic cloak (p50)
15. If you only knew (p53)
16. Dirty linen device (p58)
17. Tingling backbone device (p61)
18. Last hour device (p64)
19. Black hand (feme) device (p68)

20. Let us be practical (p70)
21. Speaking with tongues (p78)
22. Decomposition (p81)
23. Sheep and bucks (p85)
24. Personal experience (p87)
25. Anti-institution trick (p91)
26. Anti-pharisees device (p95)
27. Religious trickery in operation (p98)
28. Faith of our fathers device (p100)
29. Imagery of communism (p105)
30. Communists and bankers device (p108)
31. Administration and president baiting (p113)
32. Pick up thy bed and walk device (p117)
33. The Jews are coming (p120)
34. Problem device (p123)

Appendix 2

Anti-vaxxers aim to cause anxieties about vaccinations through the following tricks:

1. Anti-vaxxers present themselves as lone wolves fighting against the medical establishment. They seek to draw on both sympathy for the underdog and the Galileo myth (that established opinion is frequently disrupted by maverick thinkers).
2. Anti-vaxxers emphasize distress in their discourse to fake spontaneity and distinguish themselves from the seeming coldness of objective science.
3. Anti-vaxxers stress the personal integrity, honesty and credentials of themselves and others involved in the anti-vaxx movement. The fact that they feel the need to emphasise such attributes should give people cause for concern.
4. Anti-vaxxers stress their own personal sacrifices and efforts. However, their efforts would be better spent campaigning for resources for people with autism.
5. Anti-vaxxers rely on short memories. For example, they argue that the disease of smallpox would have died out without vaccines. This ignores the effort and resources (approximately £300 million) of the intensified smallpox eradication campaign between 1967 and 1979.

6. Anti-vaxxers rely on human interest stories (anecdotes) within their propaganda, again to distinguish themselves from scientific discourse.
7. Anti-vaxxers pretend that they are engaging in logical analysis, but their conclusions have already been reached.
8. Anti-vaxxers value the natural over the unnatural within their propaganda, seeking to exploit modern prejudices for the natural.
9. Anti-vaxxers use manipulative arguments, for example, X number of people cannot be wrong.
10. Anti-vaxxers claim that vaccines are causing rising rates of autism. However, statistical increases in autism rates are due to more accurate and expansive diagnoses. Scientific studies have found no link between vaccines and autism.
11. Anti-vaxxers claim that they want to debate, but accept no dissent to their anti-vaxx dogma.
12. Anti-vaxxers seek to exploit political and religious prejudices. For example, in criticising the corporations that develop vaccines they appeal to those with left wing views and by criticising state institutions they appeal to those with right-wing views.

13. Anti-vaxx propaganda contains innuendo regarding some vaccine ingredients in an effort to scare their audience. There is no evidence that the ingredients contained in some vaccines are harmful.

14. Anti-vaxxers often try to shift the debate away from science onto a legal discussion about rights. Every country has ratified a treaty including the human right to health. Such rights impose duties on states to ensure that their citizens are vaccinated against diseases.

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