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Freedom, Covid-19, and resistance to public health orders

By Ben Rosenberg

Dominican University of California. April 30, 2021

As we look back on one year since the first Covid-19 lockdowns went into effect in the United States, several truths about this ever-changing virus have emerged. For one, well-fitting, multi-layered face masks significantly reduce people's likelihood of spreading or catching Covid-19 (e.g., [Leung et al., 2020](#)), and the vaccines similarly reduce the risk of spread and infection ([Thompson et al., 2021](#)). Second, things that were, at best, at the outskirts of people's attention have become commonplace over the past year: hand sanitizer, social distancing, mask wearing, vaccinations. The related third truth is that over the past year, most Americans have probably heard prominent public health figures, like [Dr. Anthony Fauci](#), regularly urging—and sometimes even seemingly *demanding*—that people behave (or stop behaving) in certain ways to prevent the spread of Covid-19.

At the very least, a vocal majority of authority figures has been strongly urging these precautions and, sometimes, state and local governments have even mandated such precautions.

In reaction to the pressure to conform to public health guidance, some Americans seemed to go out of their way to violate each and every one of these recommendations. Shortly after hearing about Covid-related concerns, and public health instructions to avoiding touching or breathing on surfaces, NBA star Rudy Gobert intentionally [touched \(and licked!\)](#) every microphone at a press conference. Customers in grocery stores across the country aggressively declined to wear a mask, even getting into confrontations with workers and other patrons ([Smothers, 2020](#)). Yet others have organized [anti-mask protests](#) to combat state- and locally-mandated masking laws—from California to Idaho to Michigan to Washington, DC. And now hesitancy among many of these same folks to get a Covid-19 vaccine is threatening to prolong the pandemic, potentially delaying the safety of herd immunity indefinitely.

Given that the science is so clear on the role of masks, social distancing, and vaccines in leading the world out of this pandemic, it seems inexplicable that people would willingly put themselves and others at risk for severe respiratory injury or death. But they have, and as of this writing millions of Americans have caught Covid-19 and over half a million have died as a result. So, what gives? Why are people so reluctant to comply with public health mandates, demands from authorities, and even pleas from their neighbors?

Freedom: Life as an existential agent

One possible explanation lies in the experience of freedom and free will as essential components of what it means to be human. Philosophers like Kant ([1797/1967](#)), Sartre ([1943/1956](#)), Merleau-Ponty ([1964](#)), and Fromm ([1941](#)) have long debated the existence and experience of free will. Sartre ([1943/1956](#)), for one, suggested that freedom is absolute, equating free will with being human, and focusing on the importance of autonomy. In summarizing philosophers' ideas about freedom, Feldman ([2017](#)) noted, "Choice is important, as it is a fundamental factor in the understanding of the human psyche and is considered by thinkers to be a defining feature of human existence ([Heidegger, 1927](#); [Sartre, 1943/1956](#)) and sense of freedom ([Kant, 1797/1967](#))" (p. 5).

Until relatively recently, most of the thinking about freedom and free will was just that—thinking, without much empirical testing. Of late, though, psychologists and neuroscientists have made considerable strides in defining and empirically studying the concept of free will as it relates to human behavior and cognition (for reviews see [Brass et al., 2019](#); [Feldman, 2017](#)). An interesting advance is the discovery that humans’ ability to recognize and exercise freedom of choice may have emerged as an evolutionary adaptation ([Chernyak et al., 2010](#); [Nichols, 2004](#)), promoting survival and reproduction with increased ability to weigh one’s options and select an appropriate course of action ([Vohs & Baumeister, 2004](#)). An additional development is the finding that *simply believing* in free will can motivate people to think about their environments, imagine possible futures and form judgments about them, and take steps to influence the path of one’s future as it unfolds. Thus, unsurprisingly, belief in free will is typically related to motivational engagement and a range of positive outcomes, including subjective wellbeing (for review see [Feldman, 2017](#)).

Psychological reactance theory

With that existential orientation toward freedom in mind, it becomes easier to understand why people might respond so poorly to limitations on their ability to freely choose their own behaviors—such as Covid-19 public health restrictions. Indeed, a classic social psychology idea, called psychological reactance theory ([Brehm, 1966](#)), has directly addressed that very issue. The core ideas of reactance theory are that freedom of choice is an essential component of what it means to be human, that it’s adaptive, and thus that people won’t like it when their freedom is threatened or taken away.

Specifically, reactance theory assumes two broad psychological mechanisms:

1. **Monitoring and expectations:** People are constantly monitoring the world around them, building expectations about their freedoms by keeping tabs on the range of free behaviors they’ve enacted in the past, as well as those they believe they can enact in the present or future.
2. **Defending expected freedom:** If, by comparison, external forces in a current or future situation threaten or restrict people’s expected freedoms, they respond by expressing anger, more strongly valuing their originally expected freedoms, and behaviorally attempting to reassert those freedoms.

In other words, reactance theory predicts that when people perceive external forces encroaching on their ability to act freely and autonomously, their reaction will be swift and strong *rebellion!*

Reactance against Covid-19 public health measures

Now let’s think about these mechanisms in the context of pre-pandemic life and the new Covid-19 public health restrictions. First, prior to the pandemic, people *perceived they had the freedom* to decide for themselves whether or not they should wear a mask, gather in close proximity with friends and loved ones, constantly disinfect surfaces, or let the government inject strange biological substances into their arms. But then, a new situation came along, with state and local governments or public health experts demanding that people conform to public health orders by doing exactly those activities. By comparison, that new situation would no doubt be experienced by many people as a threat to their originally expected freedoms. Thus, many people clearly experienced *psychological reactance*, which would have caused

them to become angry, to more strongly value the threatened behavioral options, and to seek to *reassert their lost freedom*—refusing to wear a mask, socially distance, keep clean surfaces, or get vaccinated.

Importantly, research also finds that reactance is magnified when the threatened or restricted freedom is something that is important (e.g., [Goldman & Wallis, 1979](#)) and when people perceive the threat as unjustified ([Brehm, 1966](#)). This part of the theory is particularly relevant to what we saw unfold during the Covid-19 pandemic. The public health restrictions put in place to curb the spread of Covid-19 had an almost immediate and overwhelmingly negative impact on a supremely important facet of people's lives: economic stability. Almost overnight, millions of people become unemployed or underemployed as almost all “non-essential” workers were given stay-at-home orders and the economy essentially ground to a halt. What's more, the Trump administration and its supporters routinely characterized the public health restrictions as unjustified, calling Covid-19 a hoax that would magically disappear. For people negatively impacted by the pandemic and receptive to allegations that the public health restrictions were unjustified, psychological reactance would have been especially strong.

Better understanding “pandemic rebellion”

Decades of research on psychological reactance has helped to illuminate the cognitive, emotional, and behavioral responses to threats to people's freedoms, which can go a long way in helping us to better understand the wide variety of rebellious responses to Covid-19 public health restrictions.

Cognitive reactions

First, studies have found that when people perceive a freedom being taken from them, they tend to consider it especially valuable and important to keep (e.g., [Brehm & Rozen, 1971](#)). For example, one innovative field study ([Mazis et al., 1973](#)) examined people's evaluations of phosphate laundry detergents in a city where phosphate-based detergent was allowed (Tampa, FL) compared to evaluations of it in a city where it was banned (Miami, FL). The city's ban had substantially restricted Miami residents' freedom to choose and use a phosphate-based detergent. Sure enough, compared to the Tampa residents the Miami residents reacted to the ban by rating the banned phosphate detergents more positively.

Extrapolating these findings to the Covid-19 pandemic, if government-mandated mask requirements caused some people to feel as if they weren't *allowed* to breathe without a mask, or go out and mingle with friends, then they may suddenly feel that breathing without a mask and seeing friends in the socially “normal” way is absolutely essential. This increased value on maskless breathing helps to explain why some people began to argue that masks reduce oxygen intake and increase CO₂ intake, and why a fraudulent Freedom to Breathe Agency began spreading deceptive “face mask exemption” cards ([Goodman, 2020](#)). A similar effect also emerged on people's evaluations of the value of “normal” social gatherings at homes, schools, businesses, and cultural events. Such patterns help shed light on the rationale behind some people's constant calls to fully reopen society: if the cure (i.e., masks, stay-at-home orders, and social distancing) is worse than the disease (i.e., Covid-19), then from that perspective fully reopening would indeed seem to be the healthiest and most valuable thing to do.

Emotional reactions

Second, research also finds that when people perceive restrictions on their freedoms, they experience an array of uncomfortable feelings, including getting angry (e.g., [Nezlek & Brehm, 1975](#)) and negatively evaluating the source of the freedom threat (e.g., [Smith, 1977](#)). For example, in one informative set of studies ([Rains & Turner, 2007](#)), researchers exposed college students to a message threatening a ban on

alcohol consumption, presumably something that students would perceive as important and, most likely, unjustified. Results showed that severe freedom threats caused students to report more anger than modest freedom threats did, and that increased anger was strongly related to negative evaluations of the proposed ban.

Likewise, anger has been a centerpiece of many people's pandemic experience—anger at government shutdowns that seemingly attempted to control every aspect of people's behavior, from whether and where they could work and shop, to what they had to wear in public. The ire resulting from these restrictions came fast and furious, motivating—as just a few example—angry protests outside the home of Ohio Health Director Amy Acton, an effort to recall California Governor Gavin Newsom, and an effort to violently kidnap Michigan Governor Gretchen Whitmer.

Oppositional behavior

Thus, when people perceive their freedom is threatened, they more strongly value it, they get angry about the encroachment upon it, and—unsurprisingly—they want more than anything to get their freedom back. Subsequent thoughts and behaviors are undertaken with that singular aim in mind. The primary outcome of reactance, therefore, is behavioral: people seek to reassert their freedom by acting in opposition to the freedom threat.

Studies examining these ideas typically find that the more severe the freedom threat, the greater people's motivation to oppose it (for review see [Miller et al., 2007](#); [Quick et al., 2013](#)). Likewise, if people feel like the freedom threat is an explicit attempt to persuade them, their motivation to go against it becomes even more stubborn ([Benoit, 1998](#)). In one such study ([Bensley & Wu, 1991](#)), college students viewed one of two types of anti-drinking messages, using either highly-controlling language (e.g., “must,” “ought,” “should”) or autonomy-supportive language (e.g., “perhaps,” “possibly,” “maybe”), and then their behavioral reactions are gauged. The data patterns showed that, compared to the autonomy-supportive messages, the highly-controlling messages actually caused them to drink *more*.

Here, again, the ability of reactance to explain people's reactions to pandemic public health messaging seems clear. Most people were probably more than willing to *voluntarily* wear masks, socially distance, clean surfaces, and get vaccinated, if they understood and agreed with the reasons and thus thought they were doing so of their own volition. But government mandates and public health messages stating it was *required* probably felt, to some people, like unjustified affronts to their basic freedoms. The result, unfortunately, was that in their attempt to reassert their freedoms those folks opposed the recommended public health measures in ways that certainly killed untold numbers of friends, family, and others in their communities—refusing stay-at-home orders, refusing to mask up, gathering in large groups, and resisting vaccination.

Hacking freedom for public health: Rhetorical ways to beat the spread

As people engage life as existential agents, they desire choice in thought and action, particularly in domains deemed as important. With that in mind, research has also illuminated a set of strategies for mitigating reactance and increasing compliance (for review see [Staunton, Alvaro, & Rosenberg, 2020](#)). Public health guidance may likely become more effective at shaping people's pandemic-related behavior when designed to either strategically capitalize on—or mitigate—these basic reactance processes.

Reverse psychology

One strategy is to capitalize on basic reactance processes, such as highlighting how a public health risk may constitute a threat to one's freedom and thereby increasing positive evaluations of public health, increasing anger about the health risk/threats, and hopefully directing oppositional behavior toward the desired healthy behaviors. In an informative study on the topic ([Quick & Kim, 2009](#)), researchers found that people were typically against anti-smoking bans, because the bans were often perceived as restrictions on one's freedom. However, when participants believed that secondhand smoke threatens people's freedom to breathe clean air, they experienced reactance against smoking and their anger further prompted them to support anti-smoking activism and legislation establishing clean indoor air policies.

In a similar vein, public health guidance during a pandemic could highlight that folks who refuse to wear masks, socially distance, or get vaccinated represent threats to the rest of society's freedom to breathe Covid-free air, to reopen the economy, and safely see their loved ones again soon. People's reactance against this freedom threat, then, could help minimize such bad behaviors and motivate increased public health behaviors—like continuing to wear a mask and, when available, getting a vaccination.

Autonomy-supportive language

Another strategy for mitigating reactance against public health messaging utilizes a simple word change to achieve its aims. Whereas public health persuasion campaigns often use controlling language to emphasize what people *need to do* or *must do* to slow the spread, using more autonomy-supportive language can achieve higher rates of willing compliance. A variety of studies (e.g., [Dillard & Shen, 2005](#)) have found that, compared to controlling language (e.g., “You simply have to do it”), more autonomy-supportive messages (e.g., “It is worthy of consideration”) reduce anger and oppositional behavior.

Autonomy-supportive language could be effectively employed in public health campaigns during pandemics, particularly for people who might be reluctant to follow “mandates.” For this group of holdouts, an autonomy-supportive message asking them to, “Please consider wearing a mask” might not feel particularly directive, but it is also less likely to arouse the harsh antimask reactance that might otherwise emerge in response to messages that, “we all **MUST** wear a mask.”

Inoculations and restoration post-scripts

A final reactance reduction strategy allows for the use of more direct messages (e.g., “You **MUST** wear a mask”), but involves reaffirming people's freedom of choice either before or after the message. Research shows that “inoculating” people with a brief warning *beforehand* that the upcoming recommendation could make them feel threatened, can allay reactance and increase willing compliance (e.g., [Richards & Banas, 2015](#)). Similarly, offering a post-script *after* a strongly worded message that reminds people that, ultimately, their behavior is up to them (e.g., “Officials are *strongly urging* that you do XYZ, but ultimately it's up to you”) has been found to eliminate any reactance (e.g., [Bessarabova et al., 2013](#)).

Public health guidance could easily implement the inoculation strategy. For instance, prior to telling people they “**Must** get vaccinated for life to return to normal,” a brief statement could appear first that would ready them for the subsequent freedom-threatening message: “The message that appears below may make you feel as if you are being told what to do.” This pre-message warning could help take the harsh edge off the central public health directive.

A restoration post-script would be similarly straightforward and easy to implement. In this case, following the primary communication stating that people, “**Must** get vaccinated for life to return to normal,” a short post-script reaffirming people's freedom could appear, saying: “But ultimately, [the choice is yours](#).” This

post-script could diffuse some of the reactance that some people might feel after being so explicitly told what to do.

Conclusion

People are existential agents and freedom of choice is a core component of being human, and the perception of, and belief in, free will is an adaptive advance. That basic sense of freedom and autonomy is a highly valued experience, and actual or threatened restrictions to that freedom is likely to rouse rebellion. Research driven by reactance theory has made major advances in understanding the cognitive, emotional, and behavioral aspects of that rebellion—as well as ways to harness its power or mitigate its influence.

That work can go a long way in helping to better understand why many Americans—perhaps especially Americans—were so resistant to Covid-19 public health restrictions. For those receptive to political claims that the pandemic was a hoax, the pandemic restrictions would have seemed to be unjustified limitations of one's previously expected freedoms. Those restrictions would have quickly aroused reactance, leading people to more highly value the freedom to do “normal” pre-pandemic activities (e.g., going maskless, opening businesses), to get super angry about the restrictions (e.g., protests, recalls, violence), and to behaviorally oppose the public health mandates and recommendations (e.g., anti-maskers, anti-vaxxers).

However, reactance theory research also points to a variety of ways to harness the power of reactance to promote public health, such as through reverse psychology messaging, and ways to mitigate its power to instigate rebellion against public health measures, such as by using autonomy-supportive approaches and including inoculations and restorative post-scripts around more directive public health messaging. Continued application of the lessons learned from reactance theory research promises to further improve compliance with public health guidance in the ongoing (and future) public health events.

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