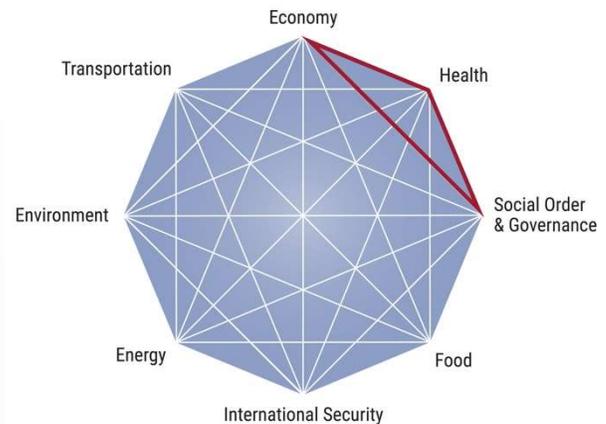


Lessons from the physical distancing norm cascade

Scott Janzwood



Summary

This Brief examines the rapid and widespread shift in attitudes and beliefs around physical distancing during the “first wave” of the COVID-19 pandemic. It also analyzes the common characteristics of individuals who did not comply with government advisories, as well as the interventions most likely to increase compliance in the event of a “second wave.”

Emerging trends

- From early March to early April 2020, the world experienced rapid and widespread changes in attitudes and behaviors toward physical distancing practices, in response to the COVID-19 pandemic.
- The physical distancing norm cascade saw an abrupt shift in collective belief systems towards a worldview that emphasizes the interconnections between personal well-being and the collective well-being of the community.
- The belief systems of individuals reluctant to adopt aggressive physical distancing tend to focus on immediate and personal costs associated with physical distancing.
- In the coming months, governments will likely need to alternately tighten and loosen physical distancing guidelines as infection rates rise and fall, challenging their ability to maintain clear and consistent messaging.

Implications for action

- Messaging should use a combination of informational communication and moral persuasion. Effective messaging emphasizes medium-to-long term impacts on the community and highlights the links between collective and personal well-being.
- Messaging should prompt people to consider how the elevated risk posed to elderly and vulnerable people may affect their own relationships with family and friends.
- Ongoing adjustments to physical distancing guidelines require strong public trust in the quality of the data and expertise underpinning these changes. A robust—and well-communicated—strategy for testing and contact tracing is essential to maintain compliance.

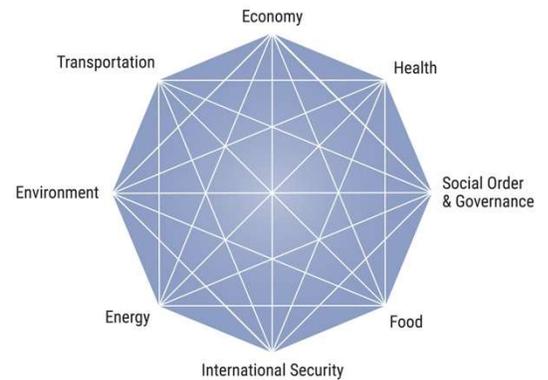
About the Cascade Institute

The Cascade Institute is a Canadian research center addressing the full range of humanity’s converging environmental, economic, political, and technological crises. Using advanced methods for mapping and modeling complex global systems, Institute researchers identify *high-leverage intervention points* in cognitive, institutional, and technological systems that, if effectively exploited, could rapidly shift humanity’s course towards fair and sustainable prosperity.

The Institute is located at Royal Roads University in British Columbia, a leader in training professionals to apply creative solutions to entrenched problems.

About the Inter-Systemic Cascades (ISC) Project

The Cascade Institute’s *Inter-Systemic Cascades Project* maps causal routes through which the COVID-19 pandemic could sequentially destabilize associated national and global systems, causing cascades of change. This series of Briefs focuses on the pandemic’s implications for the eight key systems highlighted around the adjacent octagon, and each Brief maps a possible causal route of destabilization among these systems. Cascades may be either "pernicious" (socially harmful) or "virtuous" (socially beneficial).



The analysis in this series starts from the assumption that societies are organized around cohesive sets of worldviews, institutions, and technologies (WITs), where:

- **Worldviews** are mental networks of concepts, beliefs, and values—often emotionally charged—that allow people to interpret things around them and plan their actions.
- **Institutions** are a community’s rules governing social behavior, including formal rules (constitutions, laws, and contracts), informal rules (customs and norms), and mechanisms of enforcement.
- **Technologies** are problem-solving tools that people create by harnessing phenomena of their physical and social environments.

WITs in this Brief

Worldviews: attitudes towards physical distancing, perceptions of the risk of COVID-19, consequentialism, collectivism, individualism, deontological belief systems

Institutions: social norms, physical distancing, public health authorities

Technologies: public health communication, social media

Lessons from the physical distancing norm cascade

Background

Over a period of roughly four weeks, from early March to early April 2020, countries around the world experienced rapid and widespread changes in attitudes and behaviors toward physical distancing practices in response to the COVID-19 pandemic. (In Canada, the change occurred in about a week, from March 11 to March 18.) These changes were particularly impressive in liberal democracies that did not implement penalties to enforce compliance with physical distancing rules, but instead largely relied on the strategic communication of government guidelines and the voluntary adoption of “encouraged” physical distancing practices.

Behavioral change on this scale, without the threat of sanctions for non-compliance, requires both the effective communication of public health information and also the emergence and rapid dissemination of new social norms. This Brief analyzes the initial uptake of physical distancing practices in these countries and the implications of those social dynamics for the future of public health communication over the course of the pandemic and beyond.

What is a norm cascade?

The term “norm” refers to “social attitudes of approval and disapproval, specifying what ought to be done and what ought not to be done” (Sunstein 1996, pp. 11). Compared to formal rules like laws, norms are conventionally understood as informal rules or loose guidelines of appropriate behavior. The term “norm cascade” first appeared in a 1996 article written by the preeminent legal scholar Cass Sunstein to describe instances where societies undergo rapid shifts toward new norms and has since been applied most extensively in the field of international relations (e.g. Finnemore and Sikkink 1998). Sunstein argues that human behavior is largely a function of prevailing norms and that government has a special role in managing norms to produce socially desirable behavior.

Incentive systems (such as social pressure or sanctions) and social network dynamics have clearly contributed to the rapid and wide propagation of norms encouraging physical distancing. But in contrast to most analyses of rapid normative change, this Brief focuses on the content of belief systems at the individual and collective level, a factor that is equally important for explaining the speed and extent of the physical distancing norm cascade. This focus helps us understand key causal links between people’s ideas and values, individual behavioral change, and the collective changes necessary to effectively contain a pandemic on a global scale.

The physical distancing norm cascade

Physical distancing describes a broad class of behaviors that reduce interactions between people in order to contain the spread of an infectious disease. These behaviors include: decreasing one’s physical proximity to other people, eliminating forms of physical contact (both with others and with one’s own face), avoiding congregations of people (especially indoors), increasing the frequency of handwashing, and reducing contact with surfaces that may be contaminated. During the COVID-19 pandemic, many people have been encouraged to “self-quarantine” or “self-isolate” even if there is little reason to believe they have been exposed to the virus.

Here I distinguish between “moderate” physical distancing behaviors, which include small adjustments that people make to decrease contact with others in public spaces, and “aggressive” physical distancing behaviors, which describe strategies to avoid spending unnecessary time outside of one’s home altogether. I also make a distinction between “mandated” behavior that are enforced by governments, employers, and retailers, and “encouraged” behaviors that are strongly recommended by public health experts and other authorities. The key distinction is that mandated physical distancing practices are legally enforceable, whereas encouraged practices are only loosely enforced by social censure (if at all). Table 1 divides common physical distancing practices into these categories.

	Encouraged	Mandated
Moderate	<ul style="list-style-type: none"> • Frequent hand washing and sanitization • Closing public toilet seats before flushing • Voluntary self-isolation/quarantine with symptoms • Maintaining a 2 metre distance from people at all times • Avoiding non-essential air travel • Wearing a mask in retail/grocery stores • Wearing a mask and staying outside when socializing in small groups 	<ul style="list-style-type: none"> • Personal protective equipment (PPE) for all “frontline” workers • Mandatory symptom screening at hospitals and airports • Limiting number of customers allowed in retail stores
Aggressive	<ul style="list-style-type: none"> • Voluntary self-isolation/quarantine without symptoms • Avoiding retail/grocery stores as much as possible • Avoiding non-essential travel by car or public transportation • Avoiding gatherings with family and friends 	<ul style="list-style-type: none"> • State-mandated self-isolation/quarantine • Curfews • Closing of non-essential businesses • Banning non-essential travel • Banning gatherings • Closing provincial/national borders

Table 1: physical distancing practices

Since the first case of COVID-19 in Canada was confirmed on January 25, 2020 (Government of Canada 2020), a number of deeply engrained social behaviors, practices, and attitudes—involving how people work, educate their children, move around, travel, shop, exercise, and interact with one another—have all undergone a profound shift.

These changes were unprecedented not only in their scale and scope but also in the speed at which they happened. In Canada, during the first six weeks of the outbreak (from around late-January to mid-March), government authorities monitored new cases increasingly aggressively, eventually moving to cancel large social gatherings and discourage people from travelling internationally. But many of the behaviors we associate with voluntary physical distancing practices—such as working from home, maintaining a 2 metre distance from others, and choosing to leave home only to buy groceries—went from speculative discussion to mainstream policy and practice within a matter of two to three weeks, from approximately mid-March to early-April. While the timelines differ slightly in other countries depending on the date of the first confirmed case of COVID-19 (and the first case of community spread), a similarly rapid uptake of physical distancing practices occurred in most parts of the world.

The remarkable behavioral change around physical distancing in liberal democratic countries that eschewed harsh sanctions for non-compliance may reveal generalizable mechanisms for how seemingly intractable belief systems and their associated behaviors can abruptly shift during a crisis.

Analyzing resistance to physical distancing during the “first wave”

In a recent article (Janzwood 2020), I identify four generalizable models (or archetypes) of belief systems that help reveal common mechanisms underlying shifting attitudes and behaviors regarding physical distancing during the first wave of the COVID-19 pandemic in Canada: the Good Physical Distancer (GPD), the Misinformed, the Consequentialist-Individualist (C-I), and the Consequentialist-Collectivist (C-C). These archetypes are idealized representations of the possible beliefs about physical distancing held by relatively young and healthy adults (20-40 years old) with median (Canadian) incomes and without strong personal incentives to adopt physical distancing (in contrast to frontline workers, the elderly, and other vulnerable individuals).¹

I further use a method for analyzing belief systems called Cognitive-Affective Mapping to visualize and explore these four archetypal belief systems, with results summarized here in Table 2. Several key characteristics of each archetype emerge from this analysis.

The archetype of the “Good Physical Distancer” (GPD) reflects the belief system of people who heeded government “stay at home” guidelines in the first 2 to 3 months of the outbreak and continue to practice fairly aggressive physical distancing behavior even as governments ease restrictions in many jurisdictions. While

¹ I acknowledge that the narrow scope of this analysis overlooks a significant number of individuals whose belief systems align with the Good Physical Distancer but face significant incentives that prevent them with complying with physical distancing guidelines, including: essential workers, people that are unemployed or underemployed, people facing eldercare or childcare challenges, and many others. The focus of this Brief is on the individuals that face the fewest obstacles to adopting stringent physical distancing behaviors and thus, their resistance to adopting these practices can most easily be traced to ideological factors.

recent studies show that the risk to young adults of serious illness from COVID-19 may be significantly higher than originally thought (Maragakis 2020), and while many younger adults take these risks seriously, those holding GPD beliefs tend to think that personal physical distancing practices are intended mainly to protect other people or society at large rather than themselves (Moore et al. 2020).

The dominant value of the GPD belief system is the sense of “community responsibility” that reinforces the link between personal physical distancing behavior on the one hand and the deaths of the elderly and vulnerable and the overload of the health system on the other. The GPD archetype is anchored in an empathetic or altruistic duty to other members of their community (local, national, or global) that emphasizes the costs or harms inflicted upon others, while de-emphasizing personal costs of aggressive physical distancing behavior. Although individuals holding the GPD belief system place an emphasis on actions that improve outcomes at the community level, they are also concerned about outcomes such as limitations on personal freedom, harm to personal well-being, and curtailed relationships with family and friends. But GPD beliefs are characterized by a tendency to focus on medium-to-long-term outcomes and the interconnections between personal well-being and the collective well-being of the community.

The GPD belief system can reflect either a consequentialist or deontological ethical perspective. A consequentialist ethic highlights the balance of costs and benefits produced by one’s actions. The consequentialist Good Physical Distancer adopts aggressive physical distancing practices because they believe this strategy (if adopted by most people) has the greatest likelihood of protecting their community and loved ones, which ultimately produces the greatest benefit for both the community and themselves. A deontological ethic highlights moral duties and responsibilities—that is, ethical “bright lines” that should not be transgressed. The deontological Good Physical Distancer sees compliance with physical distancing guidelines as “morally compulsory” and violating them as “morally impermissible.” This stance could reflect the broader belief that disobeying the government is fundamentally wrong or, alternatively, the belief that putting the lives of elderly and vulnerable people at risk is fundamentally wrong.

The Misinformed belief archetype was most common at the beginning of the physical distancing shift before people were widely exposed to messaging about COVID-19 and its dangers. It is characterized by an incomplete or flawed understanding of the causal chain linking the pandemic to its negative outcomes and of the role of physical distancing in minimizing or avoiding these outcomes. While various pre-existing beliefs—including religious beliefs and political allegiances—may explain why early messaging around physical distancing was ineffective with certain individuals, it is worth noting that the Misinformed often fundamentally distrust public health experts and government.

Unlike the Misinformed, the Consequentialist-Individualist (C-I) has a more complete understanding of the links between physical distancing, flattening the curve, and decreasing the strain on the healthcare system. In this respect, the perspective more closely mirrors the that of the GPD. But the C-I lacks a compelling sense of community responsibility that links personal physical distancing behavior with collective outcomes such as reducing deaths of the elderly and vulnerable, flattening the curve, and preventing health system overload. In turn, the C-I lacks the moral imperative to sacrifice immediate personal well-being for community well-being.

While the GPD belief system can be interpreted from either a consequentialist or deontological perspective, the C-I is locked into a self-centered consequentialist calculus that does not appreciate the positive feedbacks between collective and personal well-being. Therefore, compared with the Misinformed, whose main distinction from the GPD is lack of exposure to (or understanding of) scientific information (i.e., a difference in knowledge), the C-I's main distinction from the GPD is a divergence in values.

The C-I's perception of the relative costs and benefits associated with the decision to self-quarantine is skewed by an informational bias that fixates on short time horizons and direct personal impacts. The C-I belief system also tends to lack a direct link between the possible illness of their own loved ones and the deaths of the elderly and vulnerable; in other words, it fails to appreciate the near-certainty that some family members or friends are closely connected to people who could be severely affected by the virus. The C-I also sees as relatively insignificant their personal contribution to flattening the curve and reducing the risk of negative collective outcomes by forgoing visits with loved ones—or, as has been suggested by some experts, they overrate their own ability to avoid getting sick (Pinsker 2020).

<p style="text-align: center;">Good Physical Distancer</p> <ul style="list-style-type: none"> • Focuses on <i>medium-to-long-term</i> and <i>collective</i> impacts when assessing the costs and benefits of personal physical distancing behaviour • Believes that they are personally responsible for “doing their part” to flatten the curve • Believes that defying public health guidelines around physical distancing is morally wrong • Sees a direct and personal connection between the risk to the elderly and vulnerable and their own relationships with family and friends 	<p style="text-align: center;">Misinformed</p> <ul style="list-style-type: none"> • Possesses a poor understanding of the nature of the outbreak, the link between personal behaviour and collective outcomes, and the human and economic costs of overloading the health system • Focuses on <i>immediate</i> and <i>personal</i> costs of physical distancing on personal freedom, personal well-being, and their ability to see family and friends • Believes that defying public health guidelines around physical distancing is morally permissible • Does not make a direct and personal connection between the risk to the elderly and vulnerable and their own relationships with family and friends
<p style="text-align: center;">Consequentialist-Individualist</p> <ul style="list-style-type: none"> • Focuses on <i>immediate</i> and <i>personal</i> costs of physical distancing on personal freedom, personal well-being, and their ability to see family and friends • Understands the importance of “flattening the curve” but believes that their contribution to flattening the curve is too insignificant to justify assuming large personal costs • Believes that defying public health guidelines around physical distancing is morally permissible • Does not make a direct and personal connection between the risk to the elderly and vulnerable and their own relationships with family and friends 	<p style="text-align: center;">Consequentialist-Collectivist</p> <ul style="list-style-type: none"> • Focuses on <i>medium-to-long-term</i> and <i>collective</i> impacts when assessing the costs and benefits of personal physical distancing behaviour • Believes that the economic and human costs of aggressive physical distancing practices exceed the economic and human costs of relaxing physical distancing practices and allowing the outbreak to “run its course” • Believes that they are personally responsible for “doing her/his part” to stimulate the economy • Believes that defying public health guidelines around physical distancing is morally permissible

Table 2: belief system archetypes

Finally, the Consequentialist-Collectivist (C-C) archetype highlights the belief system of individuals who argue societies should adopt a “herd immunity” strategy to address the pandemic. (Such a strategy has been pursued in Sweden, the only European country that allowed most businesses and schools to remain open during the pandemic.) Like the Good Physical Distancer, the C-C has a compelling sense of responsibility to protect the long-term interests of society at large, even at the expense of short-term personal well-being. However, the C-C sees the human and economic costs associated with prolonged, aggressive physical distancing as being more significant than the costs of allowing the virus to spread (with precautions to protect the most vulnerable).

Most economists and public health experts, however, dispute the key C-C belief that the costs associated with continuing to pursue aggressive physical distancing practices until the infection has been controlled (through treatments or a vaccine) exceed those of relaxing these guidelines and resuming normal economic activity (Leatherby and McCann 2020; Porter and Tankersley 2020). For the virus to quickly infect 60 percent of the population (believed to be the minimum percentage to achieve herd immunity), the economic costs stemming from additional lives lost and overburdened healthcare systems would vastly exceed the costs arising from continued physical distancing. That being said, the strategy being pursued by most countries to suppress the spread of the virus as much as possible assumes an effective treatment or vaccine will become widely available in 2021 (Homer-Dixon 2020). If this assumption turns out to be wrong, the infection and death rates in these countries may eventually catch up to countries pursuing a herd immunity strategy anyway.

The divergence between the C-C and the GPD is, first and foremost, the result of different dominant ideas about the relative costs of prolonged physical distancing versus an immediate reopening of the economy. But there is also a small but significant divergence in values. The GPD emphasizes the moral impermissibility of the large number of deaths directly linked to abandoning physical distancing measures, which reflects a health-focused conceptualization of human well-being—and perhaps an underlying deontological ethic. Meanwhile, the C-C emphasizes the harm caused by economic collapse, which reflects a more economic (and perhaps consequentialist) conceptualization of human well-being. Still, even if one were to accept the C-C’s economic conceptualization, the perspective fails to grasp that net decreases in economic well-being may be much worse if physical distancing measures are abandoned before the outbreak is under control.

Implications for action

The Misinformed belief system can be shifted towards the GPD by providing these individuals with comprehensive and comprehensible information on the pandemic and the benefits of physical distancing. Informational messaging (i.e., messaging focused on accurately communicating the relationship between causes, solutions, and outcomes) continues to be the primary focus of health authorities and governments and has significantly increased compliance with government guidelines. Effective messaging must be consistent with the principles of good public health communication during an emergency, including principles of accessibility, relevance, comprehensibility, credibility, timeliness, and actionability (WHO 2020).

But as governments begin to ease “stay at home” guidelines and reopen businesses and schools, their ability to maintain a clear and consistent message could diminish—particularly if the infection rate spikes and governments are forced to walk back their reopening strategies. Governments must prepare citizens and businesses for the possibility that physical distancing guidelines may be alternately eased and tightened depending on the infection rate, until a treatment or vaccine is widely available. Government messaging is best served if there is a robust strategy in place for widescale testing and contact tracing and that strategy is communicated broadly. Individuals are more likely to heed changing guidelines if they believe that they are based on accurate data.

The C-I largely understands the seriousness of the pandemic and the link between physical distancing and avoiding the worst outcomes of the outbreak. Therefore, simply ensuring that they have accurate information about the outbreak and physical distancing is a *necessary but insufficient condition* for shifting their belief system towards the GPD. Instead, the C-I requires some form of moral persuasion that highlights the linkages between personal and collective well-being and inspires a sense of community responsibility. A recent study comparing the effectiveness of different types of moral messaging on attitudes towards physical distancing found that, compared to non-moral messages, deontological arguments stressing one’s duty and responsibility toward family, friends, and fellow citizens had a modest but positive effect in encouraging people to spread the message to others (Everett et al. 2020). The researchers also found that broad utilitarian or consequentialist arguments were less effective, except when they emphasized the “greater good.”

Both the Misinformed and the C-I fail to link their own relationships with family and friends to the possibility of a large number of deaths of elderly and vulnerable people. Messaging that prompts people to consider these relationships has both an informational and moral component since it asks people to make a new connection between familiar ideas (informational) and to shift their focus from themselves to the well-being of others (moral). A recent study found that the number of elderly people that a person knows is the most significant predictor of their attitudes towards physical distancing (Rieger 2020). Messaging that forces individuals to seriously consider their relationships with people in these groups—even the elderly relatives of their friends—may shift their assessment of the costs imposed by the outbreak relative to the personal cost of physical distancing.

Informational and moral messaging require careful management of expectations regarding both the duration of the outbreak and how long people will need to take precautionary measures. A recent study of government communications that updated Italians on how long they had to remain at home found that timelines shorter than expected (and that produced a positive surprise) led to improved attitudes and compliance with quarantine directives, while timelines longer than expected (and that produced a negative surprise) were associated with a lower willingness to comply with directives (Briscese et al. 2020). Although this result could suggest that governments should make frequent, short extensions to “stay home” directives, such a strategy would quickly undermine government credibility. Nonetheless, governments should carefully monitor citizens’ expectations around timelines.

Finally, shifting the C-C belief system towards the GPD belief system requires that C-C individuals be better informed about the relative costs and benefits arising from prolonged physical distancing on the one hand and

abandoning aggressive physical distancing and containment on the other. Such information seems to have powerfully influenced the UK government in mid-March. Prime Minister Boris Johnson briefly considered letting the outbreak largely run its course until “herd immunity” was achieved, but he was swayed by studies projecting the potentially staggering human and economic costs of such an approach (Yong 2020).

Since the C-C individual is already focused on medium-to-long-term collective impacts of the COVID-19 pandemic, the same moral messaging that may effectively shift the C-I is not necessarily an effective strategy for improving the C-C’s support of physical distancing. But moral persuasion that emphasizes the direct human cost of abruptly scaling back physical distancing measures, that reflects a health-focused conceptualization of well-being, and that emphasizes the sanctity of human life may help shift the C-C’s belief system away from its narrow focus on economic well-being. While some of the current proposals to rapidly reopen the economy do not stand up to scrutiny even from a purely economic perspective, down the road we will likely be confronted with more ambiguous trade-offs between saving lives and rebuilding the economy. In these situations, messaging that seeks to expand people’s notions of well-being could be an effective strategy to preserve a balance. Also, the simplistic dichotomous framing—of an inescapable choice between protecting lives or protecting the economy—should be replaced with a framing that stresses variable policy responses, where different components of the economy are incrementally “turned back on” or “scaled back” depending on infection and hospitalization rates (Coyne 2020).

For the minority of people that are still reluctant to comply with government physical distancing guidelines, government communication should be tailored to the most prevalent belief systems in this group and use a combination of informational messaging and moral persuasion. Yet these tools should not be used indiscriminately. No matter how perfectly crafted these messages are, it is equally important that they come from trusted sources within one’s social network. Belief systems will only motivate pro-social behavior when the perceived benefits of aligning one’s actions with one’s convictions exceeds the perceived social or reputational costs imposed by members of one’s social network. So messaging around physical distancing will be effective when it comes from trusted, influential sources within one’s own social network. Governments now face the difficult task of trying to penetrate the social networks where these messages have had the least resonance. They should therefore focus communication efforts on influential, well-connected “hubs” in these networks, such as celebrities, influencers, and religious leaders.

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