

ON THE EFFECTS OF PANDEMIA ON THE ANTI-SOCIAL NORM OF “NO SEA SAPO”

Literature Review

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1 Brief not-so-brief literature review

1.1 Introduction

The purpose of this literature review is to assess the effects that COVID-19 and social-distancing measures (such as quarantines) has on social norms, especially on the anti-social norm identified as “No Sea Sapo” (Do not be a toad) found in the Colombian context. Three effects will be explored: (1) the current context of pandemia induces collaboration and empathy, thus reducing anti-social behaviour such as the “No Sea Sapo” (anti)social norm. (2) The opposite occurs and people act more selfishly, resulting in heightened polarisation and division, amongst other anti-social behaviours. (3) If leadership plays a part in inducing collaboration or division (the aforementioned effects).

1.2 Main results

The main results found by this literature review are as following. The threat of disease and epidemic triggers physiological responses that evolved as an evolutionary defence mechanism towards avoiding contagion by pathogens and this aversion to contagion makes people more prone to make harsher moral judgements about behaviour that does not comply with their moral expectations (Helzer & Pizarro, 2011; Murray, Kerry, & Gervais, 2019; Aaroe, Petersen, & Arceneaux, 2017).

The effect of epidemics has also been seen to correlate with mistrust about “outgroups” throughout history (Cohn, 2016) and how recent disease outbreaks have been accompanied

by hostile attitudes towards minorities, LGBTQ community, and immigrants (Inbar, Westgate, Pizarro, & Nosek, 2017; Aaroe et al., 2017; Campante, Depetris-Chauvin, & Durante, 2020; Eichelberger, 2007; The Economist, 2020). Additionally, it has been seen how growing up in recessions transforms personal beliefs in favour of wealth-redistribution (Giulano & Spilimbergo, 2014) and how the current epidemic is taking its toll on mental health (T. Fetzner, Hensel, Hermle, & Roth, 2020), generating anxiety and economic worries and reducing trust in scientists (Aksoy, Eichengreen, & Saka, 2020). However, it seems that epidemics make the public more prone to cooperate in actions that generate public benefit rather than private benefit. (Engle-Warnick, Laszlo, Mishagina, & Strumpf, 2013; T. R. Fetzner et al., 2020). Lastly, as an example, it has been observed how in Colombia forcibly quarantining people with leprosy into closed colonies has long standing effects two generations afterwards, making the descendants of this 19th century practice more prosocial but with higher “ingroup” favouritism and mistrustful of science (Ramos-Toro, 2020).

The effect of leadership also affects how prone are individuals to cooperate. For instance, having a leader that dismisses the risks of the coronavirus has been seen to effectively reduce social-distancing in individuals, an effect mostly seen in localities with a higher proportion of followers of such given leader (Ajzenman, Cavalcanti, & Da Mata, 2020; Barrios & Hochberg, 2020; Simonov, Sacher, Dubé, & Biswas, 2020; Bursztyn, Rao, Roth, & Yanagizawa-Drott, 2020). This effect correlates on how is information shared, and further studies show that in Italy individuals are overloaded with information that given more information on the virus has little effect (Barari et al., 2020) and how people react based on whether their expectations on quarantine length correlates with the actual length (Briscese, Lacetera, Macis, & Tonin, 2020).

1.3 Effect of epidemics and crisis on social attitudes

Recurring to historical account of epidemics gives some insight on the first two effects. Cohn (2016) argues that, historically, epidemics have stoked fear and mistrust, yet social violence has not been the norm. Moreover, once social violence erupted following epidemics it was usually targeted towards “outgroups” or towards “dominant classes” because epidemics generate fear of the other and mistrust in the government. However, Cohn argues the norm has been cooperation amongst communities rather than violence.

Since the current health crisis is accompanied by an economic crisis, a study by Giulano and Spilimbergo (2014) looks into the effects of growing up in a recession by comparing data on three longitudinal surveys and macroeconomic aggregates from 32 countries. They find that experiencing a recession during early adulthood has long-lasting effects on personal beliefs, especially towards more government redistribution and how success depends more on luck

than effort. This paper helps to understand how the current crisis might affect the prosocial or antisocial behaviour in subjects in lab experiments.

A global survey conducted by T. R. Fetzer et al. (2020) reports that individuals during late march and April greatly adhered to social distancing and took hygiene measures. They also find that individuals were in favour of stronger government action but those who perceived government actions as weak and collective action as insufficient tended to show more worries and depression. This study motivates more research on the effects of the current epidemic on individual and social behaviour.

1.4 Positive effects on collaboration. COVID-19 will induce prosocial behaviour

During times of trouble, news stories appear showing citizens joining together to help others. For example, in Bogota France24 (2020) reports how multiple volunteer organisations organised during the mandatory quarantine to aid those most vulnerable. Thus, it is likely that the current epidemic may induce people to behave more pro-socially.

A study by Engle-Warnick et al. (2013) shows that the H1N1 epidemic in Canada made people were more likely to coordinate on their responses to surveys on appropriate social norms. This was measured by turning a survey into a coordination game with experimental sessions before and after a mayor outbreak in Montreal. The responses where participants coordinated the most after the outbreak were those that provided public benefits rather than private benefits.

1.5 Negative effects on collaboration. COVID will induce anti-social behaviour

A quick news search for COVID-19 and violence highlights an increase in fear and xenophobia, especially against ethnic-Chinese as an article by The Economist shows (2020). Many more stories abound, hence it seems likely that the current epidemic stoke fear and prevents prosocial attitudes.

T. Fetzer et al. (2020) found that exposing participants to information about the mortality rate and contagion rate of COVID-19 significantly change their perceptions on the effects of the current crisis on the aggregate economy (economic sentiment) and increased their economic anxiety. Additionally they describe how the crisis has increased economic anxiety (How the economic crisis will hit me) and economic sentiment (How COVID-19 will affect

the economy), making subjects more aware of the dangers posed by COVID-19.

During the 2003 SARS epidemic, it was documented a rise in risk and blame discourses against those living in New York’s Chinatown. Eichelberger (2007) studied through surveys and interviews how the epidemic increased public discourses blaming ethnic-Chinese and even resurfacing old centuries. This article is useful to understand how the current epidemic can affect public discourse and thus strengthen anti-social behaviour.

Looking at how the epidemic might trigger behavioural changes and affect social norms Helzer and Pizarro (2011) realised a study where they asked participant questions about political issues and they responded on a spectrum of *very liberal* to *very conservative*. In both a public setting and in laboratory sessions, they primed participants with messages on keeping things clean (by hanging visible wallpapers on the walls with messages about using hand-wipes or reminders or airborne diseases) or by placing hand-sanitizer dispenser in the space where the surveys were responded. They find that these primes affected participants by increasing their tendency to respond more *conservative* and make harsher moral judgements on sexual behaviour. Helzer and Pizarro argue this is because the primes make subjects more vigilant for contaminants that threaten “cleanliness and purity” and this permeates their moral judgements.

Another study by Murray et al. (2019) looked into whether the exposition to a disease affects moral judgements by making people more “vigilant” towards deviations from their own set of moral rules. They conducted three online surveys with 500 subjects each and find that those individuals that perceive a greater risk from pathogens (“perceived disease threat”) tend to make harsher moral judgements. In the first two experiments they capture the perceived risk through questionnaires and in the third experiment they prime the participants by asking them to recall previous cases of illness or threats. This study further highlights how the threat that people may perceive from COVID-19 will affect their behaviour and moral judgement.

The effect on political and social attitudes was also studied by Inbar et al. (2017) on the context of the 2014 Ebola epidemic. Through an online survey of around 250,000 U.S citizens they analysed attitudes towards the LGTBQ community. Through an analysis of a discontinued regression they find a negative change, albeit small, in social attitudes. This study further motivates the research on the effects the current pandemic will have on social norms and if it will make people more prone to prosocial or antisocial behaviour.

Furthermore, the long-term relationship with disease and social attitudes was studied by Ramos-Toro (2020) who look at evidence from Colombia’s leper colonies. These were towns that were cordoned off and to where those suffering from leprosy were forcefully sent during the 19th and early 20th century. The study shows, through lab-in-the field experiments how

those who had ancestors that were quarantined in these colonies show more pro-sociality and a higher ingroup favouritism. However they show a greater mistrust in science and scientists.

Lastly, adding to the studies that look into how individuals react in the perceived presence of disease (Aaroe et al., 2017) find how such presence negatively affects behaviour and attitudes towards immigration. They argue that the perceived presence of disease triggers an evolutionary response identified as the *Behavioural Immune System* which turns individuals more averse to unknown threats and trigger the emotion of disgust in order to keep the individual safe from disease (e.g sources of infection, unknown substances, touching people and objects). They argue that this system “people to prefer specific policies, particularly ones that reduce the likelihood of coming into contact with pathogens (real or imagined)” (Aaroe et al., 2017). Through a meta-analysis of past studies and three laboratory experiments they find that a higher perceived threat of disease increases opposition to immigration and against “outgroups”

1.6 Effect of Leadership and Information on Social Norms.

A study about public perceptions in Italy made by Barari et al. (2020) shows that from a representative sample of adults in Italy, giving messages about the importance of self-isolation has no effect on attitudes towards the virus or the crisis response. They suggest this is due to an *information overload* whereby the participants have been quite exposed to the information about the virus that new information has little effect on their perceptions.

Further research on how leadership plays a role in increasing compliance with social distancing, Briscese et al. (2020) study through surveys the responses of a sample of Italian adults the effect of quarantine extensions. They find that when the quarantine is extended for a longer time than what individuals originally expected then individuals are less likely to engage in social distancing. That is, when leaders announced a limited time quarantine (forming expectations) and then extended it (negative shock to expectations) then individuals are less willing to continue cooperating.

Studying whether leaders play a role in inducing cooperation Mulder and Nelissen (2010) conduct three separate studies (two scenario surveys and one laboratory experiment) assessing how subjects reacted to rules of cooperation depending on the type of leader that installs them. They find that subjects were more inclined to internalise pro-social behaviour when rules were introduced by self-sacrificing leaders rather than self-interested leaders.

Although not directly related to the effect of leadership on social norms, a study by Croson, Handy, and Shang (2009) looks at how informing subjects in laboratory experiments on the

contributions of other subjects increase their own contribution to a charity fund. That is, they find that informing subjects of the actions of others changes their belief on social norms and thus make them more likely to observe them. This result impacts the effect a leadership style can have on social norms since leaders decide on which information to communicate.

Webster et al. (2020) realise a rapid review of literature on factors affecting quarantine adherence. From a pool of around 3000 papers published relating to the topic, they find mixed evidence on the factors that affect the adherence to a quarantine. However, they highlight how adherence was affected by social norms (fear of being seen breaking the rules for example) and the expectations of how individuals must act. They also highlight that efficient communication techniques that are not open to various interpretations improves adherence.

Looking into whether the current epidemic will affect attitudes towards science and scientists Aksoy et al. (2020) combine data from a 2018 global survey with more than 70,000 individuals and data on epidemics since 1970. They find that experiencing an epidemic in the formative years of 18 to 25 years old has no effect on attitudes towards science but significantly reduces trust on scientists. This implies that the current epidemic might further corrode public trust in scientist and thus government messaging that stems from scientists might be less effective.

In connection to the Ebola epidemic, Campante et al. (2020) studied whether the epidemic had any effect on political attitudes and discourse on the United States. They find that following confirmed cases in the U.S, there was a drop in democrat voter share in congressional and gubernatorial elections. They also show how politicians used Ebola by mentioning it when discussing immigration and terrorism, and how the politicians that did this the most were Republican. They argue that the use of fear in connection with a disease increases the likelihood of expressing conservative concerns.

Regarding the issue of how different leaders have different effects on social behaviours, two papers analyse the effect that Fox News has had on viewers across the United States. Bursztyn et al. (2020) compare how the different messages given by Sean Hannity and Carlson Tucker had on social distancing and public health. In their study, they show that until late February, Tucker constantly reminded viewers of the dangers posed by the up until then novel coronavirus, whilst Hannity downplayed the risk. Using instrumental variables and cross-state surveys they find that in counties where there are more Hannity viewers changed behaviour later than Tucker viewers. Moreover, they show that in states where they estimate a greater Hannity viewership count there were more deaths and a higher contagion rate of COVID-19. This paper further motivate the study of how different messaging styles affect social behaviour.

Another study by Simonov et al. (2020) looks into how an increase in viewership audience

of Fox News decreases the propensity to engage in social distance. Through an instrumental variable method, they look at how does an increase in fox news audience size affect stay-at-home compliance measured using cellphone data. They find a significant and negative relationship and if states with a higher Fox News audience tend to vote more republican than other states, then this study motivates research into how messaging and political position has on social behaviour.

Regarding how political bias and polarisation affect social behaviour, Barrios and Hochberg (2020) compare the proportion of Trump voters per county with the risk perception of COVID-19. They show how counties with a higher voter share for Trump in the 2016 elections significantly and negatively affects the propensity to stay at home and practice social distancing measured from the gps location of cellular data. They also show how an increase in trump's voter share reduces google searches related to the coronavirus controlling for COVID-19 cases and deaths. Additionally, this effect was persistent even after Federal Guidelines were published. This paper also motivates research into how political beliefs affect how messages are received in the current context.

Similarly, Ajzenman et al. (2020) study how social distancing in Brazil is affected when Bolsonaro publicly dismisses the risks of COVID-19. Comparing Geo-locations of cellular data, they find that following dismissals of the risk by the Brazilian president result in a reduction of social-distancing. This effect is accentuated in localities with a strong political support for Bolsonaro whereas the effect is weaker in other localities.

1.7 Politics and ideology

A study by Bauer, Barbera, Ackermann, and Venetz (2017) argues that using surveys where individuals self-identify with a political position (e.g: left vs right) does not effectively enable cross-individual comparisons. This is due to the fact that interpretations on the answers to self-identifying surveys (e.g: *Do you consider yourself more liberal or more conservative?*) depend on exogenous variables and the personal knowledge of the individuals. Moreover, political ideology exists in a multitude of dimensions, and reducing it to a single dimension makes it difficult to capture correctly political ideology.

Bursztyn et al. (2014) further find that individuals when directly asked about their political affiliation or ideology, their responses resemble more a signal than an actual revelation of political ideology, which is an intrinsic belief. They through laboratory experiments that it is best to capture political ideologies through indirect mechanism.

Looking to capture political typologies, Pew Research Centre (2017) conducted a survey in

June (2017) looking to identify political ideologies. In order to avoid the problem associated with self-identifying political ideologies, they ask respondents to choose between two opposing statements with which they identify the most. Using these results they proceed to calculate the political ideology of the respondent without having to ask directly.

Lastly McConnell, Margalit, Malhotra, and Levendusky (2018) study how political polarisation affect individuals economic decisions. Through laboratory experiments they find that political partisanship affects behaviour in non-political settings. They analyse labour markets and how, in laboratory experiments, if the worker and the employer have the same affiliation they cooperate the most and the opposite holds if they hold distinct political affiliations (Democrat or Republican).

Another study by Fosgaard, Hansen, and Wengström (2019) look how contributions in public games are affected by the political orientation of subject participants. They ask the participants to identify themselves on a 10-point left-right scale and find that in a variation of the public good game (where player take from a common pool rather than contribute) there is a relationship between political attitudes and behaviour in the game.

The measure of political orientation depends into which dimension a researcher wishes to study. If a researcher wishes to study a one-dimensional orientation, Kroh (2007) suggests that the question be framed as follows

Most versions of the measure contain wording like the following: “In politics people sometimes talk of ‘left’ and ‘right’. Where would you place yourself on a scale from n to m where n means extreme left and m means extreme right?” Following common practice, all left–right scales analyzed in this article are labeled at their endpoints only. (Kroh, 2007)

Regarding the response options, the study compares different measures and conclude that the ideal measure is of 11 points, since an odd measure gives the option of a midpoint. This study explores different ways of asking such question and how various statistical and survey agencies use an equivalent wording for the question.

In the local context of Colombia, this question is used by the Latinbarómetro. This organisation conducts yearly surveys across Latinamerican countries asking the following question in spanish:

“En política se habla normalmente de izquierda y derecha. En una escala dónde 0 es la izquierda y 10 la derecha. ¿Dónde se ubicaría Ud.?” (Latinbarómetro, 2018)

Adding to the stream of research on how politics and ideology change behaviour in times of pandemic, Barrios, Benmelech, Hochberg, Sapienza, and Zingales (2020) looks at how civic capital has an effect on social distancing. Civic capital is defined as the set of social values that enable a community to cooperate even when there is no direct benefit to individuals. Measuring civic capital as voter turnout in past elections, they find that in U.S counties with a higher civic capital individuals engage the most in social distancing, even when taking into account federal guidelines and political affiliation.

1.8 Even further reading

Game Theory of Social Distancing in Response to an Epidemic. <https://doi.org/10.1371/journal.pcbi.1000793>

Policy Response to Pandemic Influenza: The Value of Collective Action <https://www.nber.org/papers/w17195>

Fatalism, Beliefs, and Behaviors During the COVID-19 Pandemic <https://www.nber.org/papers/w27245>

Lock-downs, Loneliness and Life Satisfaction <https://www.nber.org/papers/w27018>

Threat(s) and conformity deconstructed: Perceived threat of infectious disease and its implications for conformist attitudes and behavior <https://doi.org/10.1002/ejsp.863>

Effect of awareness programs by media on the epidemic outbreaks: A mathematical model <https://doi.org/10.1016/j.amc.2013.01.009>

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