Compliance in the 1.5 Meter Society

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Longitudinal Analysis of Citizens' Adherence to COVID-19 Mitigation Measures in a Representative Sample in the Netherlands

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Abstract

In the month of May, the Netherlands moved out of the "intelligent lockdown", and into the "1.5 meter society", which aims to mitigate the COVID-19 pandemic by means of safe-distance measures. This paper assesses how Dutch citizens have complied with these social distancing measures. It analyses data from two surveys conducted in May (between 8-14 and between 22-26) among nationally representative samples (N = 984 and N = 1021). We find that a combination of factors explain social distancing compliance. On the one hand we see that people are more likely to comply if they have an intrinsic motivation to do so, when they have the capacity to comply, when they have good impulse control, when they think compliance is normal, and when they see a general duty to obey rules generally. The paper also assesses how compliance has changed over time, assessing changes in May as well as how these are different from compliance with lockdown measures in April. During this period, there has been a gradual decline in compliance that coincides with a decline in intrinsic motivations and capacity for compliance, and there has been an increase in opportunities to violate the measures. The paper assesses what these changes may mean for current and future success of Covid-19 mitigation measures.

Introduction

Since the end of March 2020, the Netherlands has been under "intelligent lockdown" measures to mitigate the impact of the COVID-19 Coronavirus: a unique, less restrictive combination of stay-at-home and social distancing measures, which allowed citizens greater freedom of movement, while appealing to their own responsibility and self-discipline. In and earlier paper, we reported to what extent Dutch citizens complied with these measures in the period between 7 and 14 April, when they had just been implemented (see Kuiper et al. 2020). How has their compliance with these measures developed in the month of May? To study this question, we conducted two additional surveys, on

May 8-14 and on May 22-26. In this working paper, we outline the results, and thereby illuminate Dutch citizens' compliance in the 1.5 meter society.

The April survey (Kuiper et al. 2020) indicated that Dutch citizens were displaying high levels of (self-reported) compliance with social distancing and lockdown measures. It also revealed several factors that explained *why* they complied. Citizens reported more compliance if they substantively supported the measures, were practically able to comply with them, and were confronted with less opportunities for violating them. Also, citizens reported more compliance if they had better knowledge of the measures, and if they regarded the pandemic as a serious threat. Conversely, impulsive citizens were less likely to report that they had complied with the measures.

During the month of May, the "intelligent lockdown" measures were partially loosened. Primary schools and child care centers were re-opened, as were other public places (e.g., libraries, swimming pools); professions requiring close contact were re-allowed, as were (outside) sports activities involving more than ten people.[i] Nevertheless, other mitigation measures for COVID-19 remained in place, particularly social distancing. Under these measures, citizens are obliged to keep a safe distance (1.5 meters or more) from others. These more lenient mitigation measures further increased the freedom of movement of Dutch citizens. At the same time, however, they also produce other, more undesirable effects: greater proximity to others; more opportunities for getting close to them (in violation of social distancing measures), and more difficulty for authorities to monitor this, to name just a few. As such, it is important to understand how these processes have developed during the month of May. To this end, we collected two additional surveys within this period. In these surveys, we assessed citizens' (self-reported) compliance with COVID-19 mitigation measures, as well as the various processes that we used to explain this in the survey in April (see Kuiper et al. 2020).

The present study

In the present study, we examine compliance within the "1.5 meter society" in the Netherlands. To this end, we aim to understand (1) which processes sustained citizens' (self-reported) compliance with COVID-19 mitigation measures in the month of May; (2) how the loosening of mitigation measures

(relative to April) is reflected in citizens' compliance; and (3) how the resources that sustain compliance have developed throughout this period.

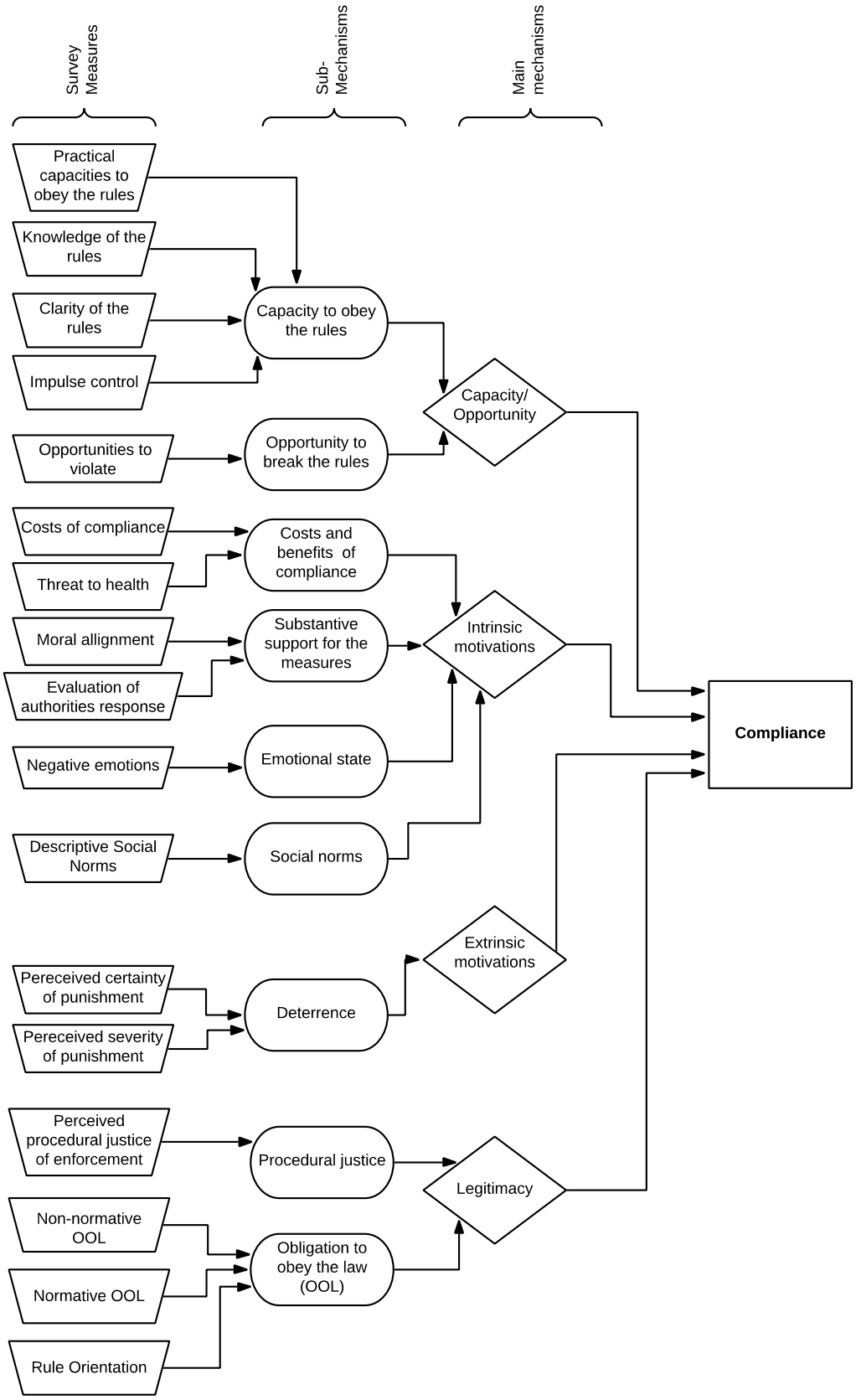
To this end, our May surveys zoomed in on citizens' tendency to keep a safe distance from others (1.5 meters or more), as they are required by the current mitigation measures within the Netherlands. We assess their (self-reported) compliance with these measures across various situations. In addition to this, we again assessed a range of processes that may explain their tendency to do so, according to insights on (non)compliance from psychology, criminology, sociology, and economics (Feldman 2018, Friedman 2016, van Rooij and Sokol 2021 (Forthcoming); for more detail, see Kuiper et al. 2020). They can be arranged in the following (broad) categories: factors that influence (1) citizens' *capacity to obey rules*, (2) their *opportunity to break rules*, (3) their *substantive support for the measures*, (4) their *emotional state due to the measures*, and their (5) *obligation to obey the law*; and factors that influence their perceptions of (6) the *cost and benefits of compliance*, (7) *deterrence*, (8) *procedural justice*, and (9) *social norms* regarding compliance (see Figure 1). We examine how these different processes predict citizens' (self-reported) compliance with safe-distance measures. Moreover, we examine how their compliance, as well as the processes that sustain it, have evolved since April, relative to the (stricter) measures that then applied. To this end, we also compare our measures from May to those from April (see Kuiper et al. 2020, for more details).

Method

We obtained ethical approval for this project (including previous and forthcoming waves) from the Ethics Review Board of the University of Amsterdam, on April 3rd, 2020. All participants provided consent before participating in the study. Participation was voluntary, and all participants could stop the survey at any time.

Figure 1.

Processes shaping compliance (theoretical model)



Participants

Participants were Dutch citizens (18 years or older) who were recruited by the Dutch online research panel Motivaction, via the website StemPunt.nu. They were redirected to Qualtrics to fill out the survey. For both waves, we utilized a Dutch translation of the (English) materials that were used in the April survey. They were rewarded with 150 StemPunten for their participation (an endowment that can be exchanged for gift vouchers at major Dutch webstores).

Table 1.

Sample characteristics and control variables, May Survey 1 and 2.

	Survey 1 (May 8-14)	Survey 2 (May 22-26)
Age	45.10 (15.27)	43.93 (14.86)
Gender		
Female	56.9%	58.7%
Male	42.9%	41.2%
Other (non-binary)	0.2%	0.1%
Ethnic minority	3.7%	4.4%
Education		
No diploma	5.0%	3.8%
High school degree	28.7%	24.5%
Intermediate vocational	29.8%	33.8%
College degree and higher	36.7 %	31.9%
Employed	62.5%	67.3%
Care professionally for COVID patients	4.2%	5.8%
Socio-economic status, pre-COVID	6.49 (1.63)	6.48 (1.58)
Socio-economic status, post-COVID	6.33 (1.74)	6.34 (1.72)
Political view		
Very progressive	8.4%	7.0%
Slightly progressive	31.8%	30.6%
Slightly conservative	28.5%	28.7%
Very conservative	3.7%	3.3%
Prefer not to say	27.6%	30.5%
Health issues placing oneself at risk	26.8%	28.3%
Health issues placing others at risk	68.6%	68.0%
Trust in science	4.04 (0.88)	4.00 (0.86)
Trust in media	3.20 (1.07)	3.16 (1.09)
N	984	1021

Note. Standard deviations between parentheses. Ethnic minority and political view: percentages may not add up to 100% as participants could select the option "prefer not to say".

1422 participants participated in May Survey 1 (May 8-14). 438 participants failed to complete the survey, provided incomplete responses, or failed to pass two attention checks; these

participants were excluded from the sample. The final sample therefore consisted of 984 cases (56.9% women, 42.9% men, 0.2% non-binary; M_{age} = 45.10 years).

1343 participants participated in May Survey 2 (May 22-26). Here, 322 participants failed to complete the survey, provided incomplete responses, or failed to pass two attention checks; again, these participants were excluded from the sample. As such, the final sample consisted of 1021 cases (58.7% women, 41.2% men, 0.1% non-binary; M_{age} = 43.93 years). Demographical information for both samples is displayed in Table 1.

Materials

Control variables. The following demographic variables were recorded: age, gender, nationality, information on residency (country, province), employment status, education, part of ethnic minority, social economic status before and after COVID-19 (MacArthur Scale of Subjective Social Status; Adler et al. 2000), and political orientation (adapted from Fine, Rowan, and Simmons 2019, Hasson et al. 2018, Wojcik et al. 2015).[1]

Additionally, we asked participants several questions that probed exposure to, and risk from, COVID-19. Specifically, we asked them to indicate whether they provided professional care for COVID-19 patients, and whether they themselves or anyone they knew had underlying health issues that would put them more at-risk for complications from COVID-19.

In light of the prominent (and controversial) role of science and media reporting in the COVID-19 crisis, we further asked participants to indicate their trust in science (on four items taken from McCright et al. 2013), and trust in media reporting (on a single item, see Kuiper et al. 2020).

[1] In both surveys, a considerable number of participants preferred to not disclose their political orientation (survey 1: 27.6%; survey 2: 30.5%). To enable these cases (whose responses were otherwise valid) to be included in models that include political orientation, this variable was recoded into two dummy-coded variables (political orientation (conservative): 1 = very conservative or conservative, 0 = progressive, very progressive, or prefer not to say; political orientation (undisclosed): 1 = prefer not to say, 0 = very conservative, conservative, progressive, very progressive). In the analysis, the first variable captures the contrast between conservative and progressive orientation; the second the contrast between undisclosed and progressive orientation. The latter comparison is less informative, but enables cases with no disclosed orientation (but otherwise valid responses) to be retained in the analysis.

Compliance with COVID-19 measures. In light of the Dutch government's decision to repeal "intelligent lockdown" measures during the month of May, we adapted our previous measure of compliance with COVID-19 mitigation measures (see Kuiper et al. 2020) to focus exclusively on safe-distancing measures. To this end, we included seven questions that assessed participants' (self-reported) tendency to keep a safe distance (1.5 meters or more) from: i) "others outside of my direct household", ii) "my neighbors", iii) "colleagues at work", iv) "friends and family from outside of my direct household", v) "others when grocery shopping", vi) "others when taking a walk or exercising", and vii) "others in traffic or public transport" (1 = "never", 7 = "always"). Responses were combined into a single scale measure (Survey 1: $\alpha = .84$; Survey 2: $\alpha = .87$), with higher scores indicating greater compliance with COVID-19 mitigation measures (see Table 2).

Table 2.

Descriptive statistics of dependent variables, May Survey 1 and 2.

	Survey 1 (May 8-14)	Survey 2 (May 22-26)
I keep a safe distance (1.5 meters or more) from…		
Others outside of household	5.96 (1.34)	5.87 (1.34)
Neighbors	6.33 (1.11)	6.19 (1.22)
Colleagues at work	5.65 (1.75)	5.52 (1.76)
Friends and family outside household	5.60 (1.48)	5.36 (1.53)
Others when grocery shopping	6.01 (1.09)	5.84 (1.13)
Others when walking or exercising	6.28 (1.05)	6.18 (1.08)
Others in traffic or public transport	6.22 (1.12)	6.14 (1.18)
Compliance scale measure	6.00 (0.93)	5.87 (1.00)

Note. Standard deviations between parentheses.

Capacity to obey rules. To assess participants' capacity to obey COVID-19 mitigation measures, we measured four (interrelated) constructs: (a) their practical capacities to obey the rules, (b) their knowledge of the rules, (c) the perceived clarity of the rules, and (d) their capacity to control themselves, i.e., their impulsivity.

***Practical capacity to comply*.** Participants' practical capacity to comply with safe-distance measures in practice was measured by means of seven items, based on our measures of compliance: (I am capable of keeping a safe distance (1.5 meters or more) from:) i) "others outside of my direct

household", ii) "my neighbors", iii) "colleagues at work", iv) "friends and family from outside of my direct household", v) "others when grocery shopping", vi) "others when taking a walk or exercising", and vii) "others in traffic or public transport" (1 = "disagree completely", 7 = "agree completely"). Responses were combined into a single scale measure (Survey 1: $\alpha = .78$; Survey 2: $\alpha = .78$), with higher scores indicating greater practical capacity to comply with COVID-19 mitigation measures.

Knowledge of the rules. To assess their knowledge of COVID-19 mitigation measures, we asked participants to indicate whether current measures required them to keep a safe distance (1.5 meters or more) from others (1 = yes, 2 = no, 3 = don't know). Their responses were recoded to reflect accurate knowledge of the current mitigation rules (1 = yes, 0 = no or don't know).

Perceived clarity of measures. One item was solicited to assess the perceived clarity of the measures taken by the authorities to reduce the spread of the Coronavirus (1 = "extremely unclear"; 7 = "extremely clear").

Impulsivity. Impulsivity was measured by means of a subset of five items taken from the 8-item impulse control subscale from the Weinberger Adjustment Inventory (WAI; Weinberger and Schwartz 1990): i) "I should try harder to control myself when I'm having fun", ii) "I do things without giving them enough thought", iii) "When I'm doing something fun (like partying or acting silly), I tend to get carried away and go too far", iv) "I say the first thing that comes to my mind without thinking enough about it", and v) "I stop and think things through before I act" (1 = "false", 5 = "true"; last item reverse coded). Participants' answers were combined into a scale measure (Survey 1: $\alpha = .75$; Survey 2: $\alpha = .76$), with higher scores indicating greater impulsivity.

Opportunity to violate. Opportunity to violate safe-distance measures in practice was measured by means of seven items (again based on our measures of compliance): (At this moment, it is still possible for me to come at an unsafe distance (closer than 1.5 meters) from: i) "others outside of my direct household", ii) "my neighbors", iii) "colleagues at work", iv) "friends and family from outside of my direct household", v) "others when grocery shopping", vi) "others when taking a walk or exercising", and vii) "others in traffic or public transport" (1 = "disagree completely", 7 = "agree

completely"). Again, participants' responses were aggregated into a single scale measure (Survey 1: α = .90; Survey 2: α = .89), with higher scores indicating greater practical opportunity to violate COVID-19 mitigation measures.

Substantive support for measures. To assess participants' substantive support for COVID-19 mitigation measures, we measured two (interrelated) constructs: (a) their moral alignment with mitigation measures, and (b) their evaluation of the authority's response to COVID-19.

Moral alignment. Moral alignment with the current COVID-19 mitigation measures was measured by means of a single item, which assessed to which extent participants "morally believe(d) that people should keep a safe distance from others (1.5 meters or more) in order to contain the Coronavirus" (1 = "strongly disagree", 7 = "strongly agree").

Evaluation of authority response. Support for current policies was measured using two items. These asked to which extent participants believed the authorities to have been i) "consistent", and ii) "adequate" in their response to contain the Coronavirus (1 = "strongly disagree", 7 = "strongly agree"). A scale measure was constructed from their responses (Survey 1: α = .85; Survey 2: α = .84), with higher scores indicating greater support for current policies.

Emotional state due to COVID-19. To assess participants' emotional state due to COVID-19, we measured six items negative emotions. Participants indicated to what extent the Coronavirus made them feel i) "angry", ii) "scared", iii) "powerless", iv) "depressed", v) "stressed", and vi) "lonely" (1 = "strongly disagree"; 7 = "strongly agree"). They were aggregated into a scale measure (Survey 1: α = .84; Survey 2: α = .86), with higher scores indicating more negative emotions.

Obligation to obey the law. To assess participants' obligation to obey the law, we measured three (interrelated) constructs: (a) normative obligation to obey the authorities, (b) non-normative obligation to obey the authorities, and (c) personal rule orientation.

Normative obligation to obey the authorities. Three items solicited participants' normative obligation to obey the authorities handling the Coronavirus (adapted for this study following Posch et

al. 2020, Tankebe, Reisig, and Wang 2016): i) "I feel a moral obligation to obey the authorities handling the Coronavirus", ii) "I feel a moral duty to support the decisions of the authorities handling the Coronavirus, even if I disagree with them", and iii) "I feel a moral duty to obey the instructions of the authorities handling the Coronavirus, even when I don't understand the reasons behind them" (1 = "strongly disagree", 5 = "strongly agree"). Answers were aggregated into a scale measure (Survey 1: $\alpha = .83$; Survey 2: $\alpha = .84$). Higher scores indicated greater normative obligation to obey.

Non-normative obligation to obey the authorities. Additionally, three items solicited participants' non-normative obligation to obey the authorities handling the Coronavirus (again adapted for this study following Posch et al. 2020, Tankebe, Reisig, and Wang 2016): i) "People like me have no choice but to obey the authorities handling the Coronavirus", ii) "If you don't do what the authorities handling the Coronavirus tell you they will treat you badly", and iii) "I only obey the authorities handling the Coronavirus because I am afraid of them" (1 = "strongly disagree", 5 = "strongly agree"). In either survey, the first item correlated poorly with the other items, and thus was eliminated. Responses to items 2 and 3 combined into a scale measure (Survey 1: $\alpha = .60$; Survey 2: $\alpha = .62$), with higher scores indicating greater non-normative obligation to obey.

Personal rule orientation. We measured participants' generalized belief in the acceptability of violating legal rules by means of the 12-item Rule Orientation scale (Fine et al. 2016). This instrument assesses the perceived acceptability of breaking legal rules across a range of situations (e.g., when the rule is against one's moral principles; when the rule is not enforced; when others think that breaking the rule is justified, etc; 1 = "strongly disagree", 7 = "strongly agree"). A scale measure was constructed by aggregating participants' responses (Survey 1: $\alpha = .90$; Survey 2: $\alpha = .90$), with higher scores indicating greater rule orientation.

Costs and benefits of compliance. To examine participants' perceptions of the costs and benefits of compliance, we measured (a) their perceptions of the costs of compliance, and (b) their perceptions of the threat of COVID-19.

Costs of compliance. Five items were solicited to assess the costs that participants anticipated as a result of the Coronavirus. Specifically, we asked them to indicate how likely it was that they would i) "lose income", ii) "lose their job", iii) "not be able to work", iv) "not be able to work as effectively as normal", and v) "experience a negative impact on their social life" (1 = "extremely unlikely", 7 = "extremely likely"). These were combined into a scale measure of costs of compliance (Survey 1: $\alpha = .75$; Survey 2: $\alpha = .75$), with higher scores indicating greater costs.

Perceived health threat. Perceived health threat was measured by means of three items, which asked participants to indicate to what extent they believed the Coronavirus to be a major threat to i) themselves, ii) friends and relatives, and iii) the general public (1 = "strongly disagree", 7 = "strongly agree"). Their answers were combined into a scale measure (Survey 1: $\alpha = .86$; Survey 2: $\alpha = .86$), with higher scores indicating greater perceived health threat.

Deterrence. Deterrence perceptions were assessed by means of two (interrelated) constructs: (a) perceptions of punishment certainty, and (b) perceptions of punishment severity.

Punishment certainty. To assess perceptions of the likelihood of punishment for violating safe-distance measures, two questions were asked. These assessed the perceived likelihood that the authorities would i) "find out", and ii) "punish you", if they would not keep a safe distance (1.5 meters or more) from others (1 = very improbable, 7 = very probable). Both items were aggregated into a scale measure (Survey 1: $\alpha = .75$; Survey 2: $\alpha = .77$), with higher scores indicating greater perceived likelihood of punishment.

Punishment severity. One item examined perceived severity of punishment for violating safe-distance measures. Participants indicated how much they would "suffer" if the authorities would punish them for not keeping a safe distance (1.5 meters or more) from others (1 = extreme suffering, 6 = no suffering at all). The item was reverse-coded so that higher scores indicate greater perceived severity of punishment.

Procedural justice of enforcement. Perceptions of the procedural fairness of the enforcement of COVID-19 mitigation measures were measured by means of four items (adapted from

Baker and Gau 2018, Gau 2014, Tyler 1997, Wolfe et al. 2016): (In enforcing the measures to reduce the spread of the Coronavirus, I expect that the authorities will) i) "treat people with respect", ii) "give a person the chance to tell their side of the story if the person is accused of violating measures to contain the Coronavirus", iii) "treat people fairly, despite gender, race, religion, or socioeconomic background", and iv) "be honest in enforcing measures to contain the Coronavirus" 1 = "strongly disagree", 7 = "strongly agree"). Participants' responses were aggregated into a scale measure of the perceived procedural fairness of enforcement (Survey 1: $\alpha = .87$; Survey 2: $\alpha = .88$).

Table 3.

Descriptive statistics of independent variables, May Survey 1 and 2.

	Survey 1 (May 8-14)	Survey 2 (May 22-26)
Capacity to comply		
Practical capacity to comply	5.74 (0.86)	5.65 (0.87)
Knowledge of measures	94.5%	95.4%
Clarity of measures	5.80 (1.10)	5.60 (1.23)
Impulsivity	2.05 (0.80)	2.06 (0.79)
Opportunity to violate	4.66 (1.52)	4.91 (1.41)
Substantive support for measures		
Moral alignment	5.95 (1.31)	5.73 (1.43)
Authority response	5.18 (1.34)	5.20 (1.39)
Negative emotions	3.18 (1.31)	3.24 (1.36)
Obligation to obey the law		
Normative obligation	4.02 (0.73)	3.93 (0.74)
Non-normative obligation	2.15 (0.77)	2.19 (0.80)
Rule orientation	4.53 (1.16)	4.43 (1.14)
Costs and benefits		
Costs of compliance	3.50 (1.32)	3.49 (1.31)
Perceived health threat	5.04 (1.33)	4.98 (1.34)
Deterrence		
Punishment certainty	3.21 (1.48)	3.18 (1.50)
Punishment severity	3.24 (1.39)	3.16 (1.33)
Procedural justice of enforcement	5.95 (1.04)	5.93 (1.04)
Descriptive social norms	5.30 (1.06)	5.20 (1.07)

Note. Standard deviations between parentheses.

Descriptive social norms. Seven items (again based on our measure of compliance) assessed perceived descriptive social norms regarding safe-distancing measures: (most people I know are

keeping a safe distance (1.5 meters or more) from: i) "others outside of my direct household", ii) "my neighbors", iii) "colleagues at work", iv) "friends and family from outside of my direct household", v) "others when grocery shopping", vi) "others when taking a walk or exercising", and vii) "others in traffic or public transport" (1 = "disagree completely", 7 = "agree completely"). Participants' answers were combined into a scale measure of perceived descriptive norms (Survey 1: $\alpha = .88$; Survey 2: $\alpha = .89$). Higher scores indicate greater perceived compliance within one's social environment (i.e., descriptive norms).

Results

Understanding compliance in the 1.5 meter society: what sustained compliance in May?

Our first major question is to understand which processes sustained compliance with COVID-19 mitigation measures within the Netherlands during the month of May. To this end, we firstly examine how compliance with the current measures is predicted by the personal, social, and contextual processes that are advanced by our theoretical model (see Figure 1). To do so, we conducted linear regression analyses, in which Dutch citizens' (self-reported) compliance with social distancing measures was regressed upon these variables (for a similar approach, see Kooistra et al. 2020; Kuiper et al. 2020; van Rooij et al. 2020). To understand how these processes have changed relative to April, we contrast the results with those from our previous survey (see Kuiper et al. 2020). This comparison illuminates whether the processes that explain compliance have changed now that the scope of the measures has been reduced. It is important to emphasize that because the scope of mitigation measures has changed across this period, compliance therefore refers to different behaviors (i.e., following social distancing and lockdown measures in April; following social distancing measures in May). Nevertheless, it also captures an identical construct in either period, namely (self-reported) compliance with the (at that time) current mitigation measures in the Netherlands.

As such, we performed ordinary least-squares regression analyses using the compliance measure as the dependent variable. We firstly estimated a model in which all demographical and control variables (Table 1) were entered as predictors, in order to identify relevant covariates. Then,

we estimated a model that entered all independent variables as predictors, along with the covariates identified in the previous analysis. All analyses were adjusted for heteroscedasticity using Huber/White robust standard error estimation. The analyses of the April survey (see Kuiper et al. 2020) were revised to ensure their comparability with those of the May surveys (i.e.: care for Coronavirus patients is treated as a possible covariate, rather than a selection criterion; trust in science and trust in media are treated as possible covariates, rather than predictors; political orientation is dummy-coded to retain cases with undisclosed orientation, rather than discarding them).

Table 4.
Linear regression, compliance with mitigation measures by demographic and control variables.

	Early April	**Early May**	**Late May**
Demographic variables			
Age	.01* (.00)	.01*** (.00)	.01*** (.00)
Gender (female)	.19** (.06)	.18** (.06)	.18** (.06)
Minority	.14 (.08)	-.14 (.19)	.17 (.15)
Education	-.00 (.02)	.07** (.02)	.03 (.02)
Employed	-.07 (.07)	-.08 (.07)	-.12 (.07)
Care professionally for COVID patients	-.33 (.27)	-.33* (.14)	-.10 (.11)
Socio-economic status, pre-COVID	.02 (.02)	-.02 (.02)	.02 (.02)
Socio-economic status change (post-pre)	.01 (.03)	-.01 (.04)	-.04 (.04)
Health issues placing oneself at risk	.15 (.08)	.15* (.07)	.17** (.07)
Health issues placing others at risk	.07 (.07)	.04 (.07)	.11 (.07)
Trust in science	.16*** (.05)	.20*** (.04)	.32*** (.05)
Trust in media	-.01 (.02)	-.02 (.03)	.06 (.03)
Political orientation (conservative)	.02 (.09)	-.05 (.07)	.05 (.07)
Political orientation (not disclosed)	-.01 (.10)	-.04 (.07)	.25** (.08)
Friends or family over 75	-.03 (.06)		
Size of household	-.03 (.02)		
Constant	4.98*** (.32)	4.21*** (.29)	3.16*** (.33)
Rsq	**.08**	**.11**	**.15**

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Effect of demographic variables. Table 4 displays the results of the regression models that included only the demographic variables.[2] Across all three surveys, Dutch citizens who were older, female, and who had greater trust in science displayed greater (self-reported) compliance. Additionally, participants with health conditions that put them at greater risk of COVID-19 reported higher compliance in both May surveys. Higher education was only associated with greater compliance in May survey 1, whereas caring professionally for COVID-19 patients was associated with lower compliance in the same survey (but not in those in early April or late May). Lastly, an undisclosed political orientation was associated with greater compliance in May survey 2 (but not in early April or early May). Demographic variables with significant effects on compliance were included as covariates in subsequent models, in which the independent variables were added as predictors.

Effect of independent variables. The results of both analyses are displayed in Table 5[3]. They show that the factors that predict compliance for the most were highly similar across the three time points. Dutch citizens complied more with COVID-19 mitigation measures if they had greater practical capacity to keep at a safe distance from others. Also, people who agreed more with the measures complied more. And, people who perceived the COVID-19 epidemic as more threatening engaged in more social distancing. Impulsive persons, on the other hand, were less inclined to do so.

There were also some factors that consistently predicted compliance in May, but did not do so in the April survey. Compliance was higher for people who generally feel a greater obligation to obey legal rules (rule orientation). Also, people also complied more if they perceived that others in their social environment engaged in social distancing. It is possible that these findings reflect that intrinsic motives and norms became more influential as lockdown measures were repealed in the Netherlands. Whether this may indeed be the case is too soon to tell, due to differences between the sample composition (younger in April) and the measurement of these concepts (more refined in the May surveys).

[2] Collinearity statistics indicated no issues with multicollinearity (all VIFs ≤ 1.41; all tolerances ≥ .70).
[3] Again, collinearity statistics indicated no issues with multicollinearity (all VIFs ≤ 1.98; all tolerances ≥ .50).

Table 5.

Linear regression, compliance with mitigation measures by demographic variables.

	Early April	**Early May**	**Late May**
Independent variables			
Capacity to comply			
Practical capacity to comply	.13*** (.03)	.42***(.04)	.36*** (.05)
Knowledge of measures	.08*** (.02)	.10 (.12)	.11 (.14)
Clarity of measures	.01 (.02)	.06* (.03)	.01 (.02)
Impulsivity	-.13** (.04)	-.09* (.03)	-.12*** (.03)
Opportunity to violate	-.06* (.02)	-.02 (.01)	-.04** (.02)
Substantive support			
Moral alignment	.12** (.04)	.10*** (.02)	.07** (.03)
Authority response	-.05* (.03)	-.05** (.02)	-.02 (.02)
Negative emotions	.00 (.03)	.02 (.02)	.03 (.02)
Obligation to obey the law			
Normative obligation		.03 (.04)	.19*** (.04)
Non-normative obligation	-.01 (.02)	.00 (.04)	-.02 (.03)
Rule orientation	.02 (.02)	.08** (.02)	.07** (.02)
Costs and benefits			
Costs of compliance	.02 (.02)	.05* (.02)	.03 (.02)
Perceived health threat	.07* (.03)	.10*** (.02)	.13*** (.03)
Deterrence			
Punishment certainty	-.02 (.02)	.00 (.02)	.01 (.01)
Punishment severity	.05 (.02)	.02 (.02)	.00 (.02)
Procedural justice of enforcement	-.01 (.03)	.01 (.03)	.01 (.03)
Descriptive social norms	.04 (.02)	.06* (.02)	.08** (.03)
Control variables			
Age	.00 (.00)	.01*** (.00)	.01*** (.00)
Gender	.13* (.06)	.14** (.05)	.12* (.05)
Education	-.01 (.02)	.04** (.01)	.01 (.01)
Care professionally for COVID patients	-.43* (.18)	-.28* (.13)	.03 (.09)
Health issues placing oneself at risk	.10 (.07)	.07 (.05)	.03 (.05)
Trust in science	.07 (.05)	.01 (.03)	.04 (.04)
Political orientation (conservative)	.04 (.08)	-.08 (.05)	-.05 (.06)
Political orientation (not disclosed)	-.08 (.09)	-.02 (.05)	.11 (.06)
Constant	3.63*** (.43)	0.72 (.40)	0.82* (.37)
Rsq	**.32**	**.49**	**.49**

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

In addition, there were some factors that inconsistently predicted compliance. For example, people complied less if they reported greater opportunity to violate social distancing measures, but this was statistically significant only in the surveys in early April and late May. Similarly, more favorable perceptions of the sufficiency of authority's response to COVID-19 predicted lower compliance in early April and early May, but not in late May. Other factors only predicted compliance in a single time period (e.g., personal costs, knowledge of measures, clarity of measures, normative obligation to obey the authorities). It remains to be seen whether these are isolated cases, or whether these represent processes that are more meaningfully related to compliance. If so, they should persist, and possibly become more influential in the future, as further restrictive measures are loosened.

How has the loosening of mitigation measures affected citizens' compliance?

As noted, during the month of May, the "intelligent lockdown" measures that were in force in the Netherlands in April were partially loosened. How is this reflected in citizens' compliance with COVID-19 mitigation measures? Has citizens' compliance reduced during the month of May, possibly as a result of the loosening of stricter measures? To explore this question, we examine how compliance has developed from early April to late May. As previously noted, compliance reflects different behaviors in either period, due to the different measures that were in force, and the different measures that were employed in the surveys; as such, our compliance measures for May (which focus exclusively on safe-distance measures) cannot be directly compared to the measures of compliance from our April survey (which also examined compliance with lockdown measures; see Kuiper et al. 2020). Nevertheless, as an illustration of compliance with safe-distance measures in April, we do report data from a (less refined) single-item measure here, which was part of the compliance scale in our previous survey (see Kuiper et al. 2020). For the surveys in May, we also (exploratively) show how social distancing differs across the various settings that comprise our compliance scale measure (the April survey utilized a less fine-grained measure, in which these settings were not separated).

Visually, the pattern in Figure 2 suggests a mildly declining pattern in compliance with safe-distance measures from early April to late May. For the data from May, this decline can be tested

statistically (because both utilized the same measures). To do so, we compared compliance levels between both May surveys by means of an analysis of covariance (ANCOVA), with parameter estimates with robust standard errors (HC3). The analysis controlled for education level and employment status, which were the only demographics to display significant differences between waves. The results confirmed a slight (but statistically significant) decline in self-reported compliance with social distancing measures, b = 0.13, robust SE = 0.04, p = .002 (see Figure 2). We can therefore conclude that there was a significant reduction in compliance in the Netherlands in May, although compliance remains relatively high in absolute terms.

Figure 2.

Compliance with safe-distance measures, early April – late May.

When separating compliance with safe-distance measures between the various settings that comprise our measure (Figure 2), Dutch citizens report greater compliance in interactions with neighbors, when walking or exercising, and in traffic or public transport. Conversely, compliance was lower (ps < .001) in interactions with others outside of one's household and while grocery shopping, and lowest (ps < .001) in interactions with colleagues and with friends and family from outside one's own household. Here also, parameter estimates with robust standard errors suggested compliance to

decline in some of these settings, such that in late May, Dutch citizens reported significantly lower compliance in interactions with neighbors (b = 0.14, robust SE = 0.05, p = .006), with friends and family (b = 0.23, robust SE = 0.07, p = .001), or while grocery shopping (b = 0.16, robust SE = 0.05, p = .001) – but not in interactions with others outside of their household in general (b = 0.07, robust SE = 0.06, p = .22), in interactions with colleagues (b = 0.15, robust SE = 0.08, p = .05), when taking a walk or exercising (b = 0.9, robust SE = 0.05, p = .05), or in traffic or public transport (b = 0.08, robust SE = 0.05, p = .13).

In sum, these findings provide indications that the compliance of Dutch citizens with safe-distancing measures has declined somewhat over the course of May. We find no indications that compliance has strongly decreased after the loosening of more stringent mitigation measures, however. We next turn to the question how the resources that have been sustaining compliance (those that we found to be significantly associated with compliance in our models) have developed across this period.

How have the resources that sustain compliance developed across the month of May?

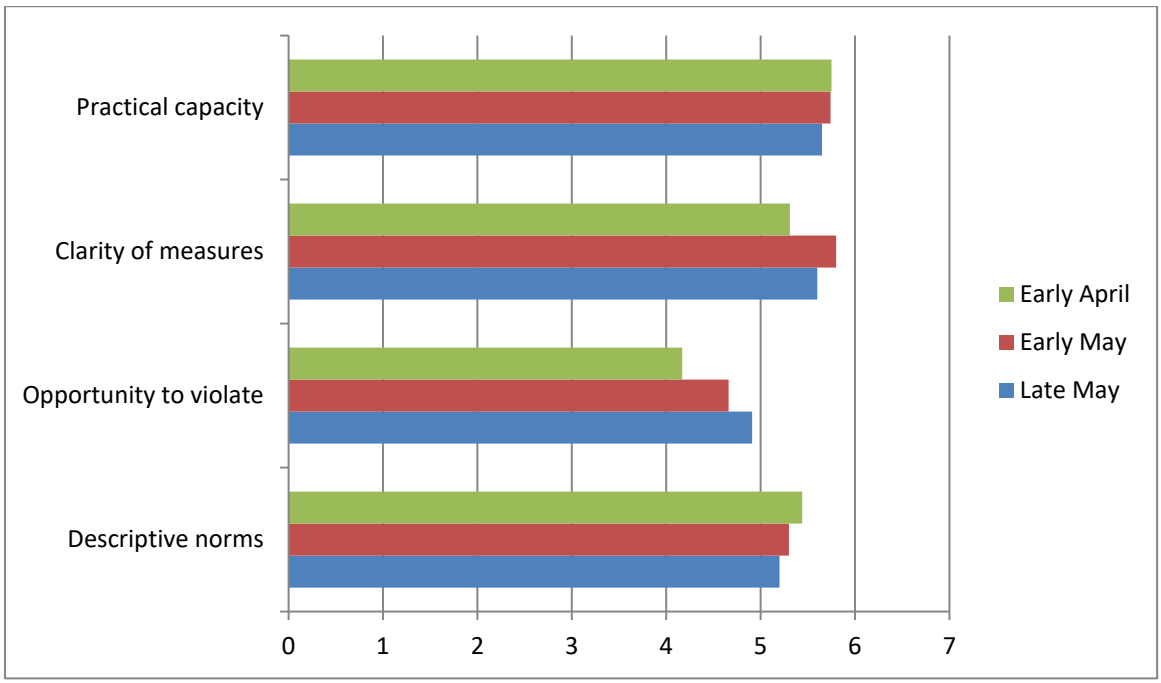
Our regression analyses identified several processes that seem to sustain compliance with safe-distance measures, including citizens' practical capacity to keep a safe distance from others, their agreement with mitigation measures, and perceptions of the threat of the COVID-19 virus. How have these and other resources developed across the month of May, and what may that imply for compliance with mitigation measures in the future? To explore these questions, we also examine their evolution from early to late May using analyses of covariance with parameter estimates with robust standard errors. As an illustration, we also display the data from early April. These are not directly comparable, given that they relied on different (related, but not identical) measures. To improve their comparability, we only report the items that refer to safe-distance measures (and not other measures that were in force in early April).

To begin with, let us consider respondents' capacity to comply with social distancing measures (Figure 3). During the course of May, Dutch citizens still reported having considerable

practical capacity to obey COVID-19 mitigation measures (e.g., being able to keep a safe distance from others at work, when walking or exercising, while grocery shopping, etc.) Nevertheless, a small (but statistically significant) decline in capacity was observed in late May, b = 0.09, robust SE = 0.04, p = .015. Across this period, Dutch citizens also displayed high levels of knowledge of safe-distance measures (early May: 94.5% correct; late May: 95.4% correct), although this appeared to be somewhat lower than in the early April survey (98.1% correct). Most notable perhaps were citizens' perceptions of the clarity of mitigation measures. In early May, Dutch citizens seemed to report high levels of perceived clarity, relative to the lower levels that were observed in April. In late May, however, perceptions of clarity seemed to decline again, and this decrease was statistically significant, b = 0.20, robust SE = 0.05, p < .001.

Figure 3.

Capacity to comply, opportunities for violating, and social norms regarding safe-distance measures, early April – late May.

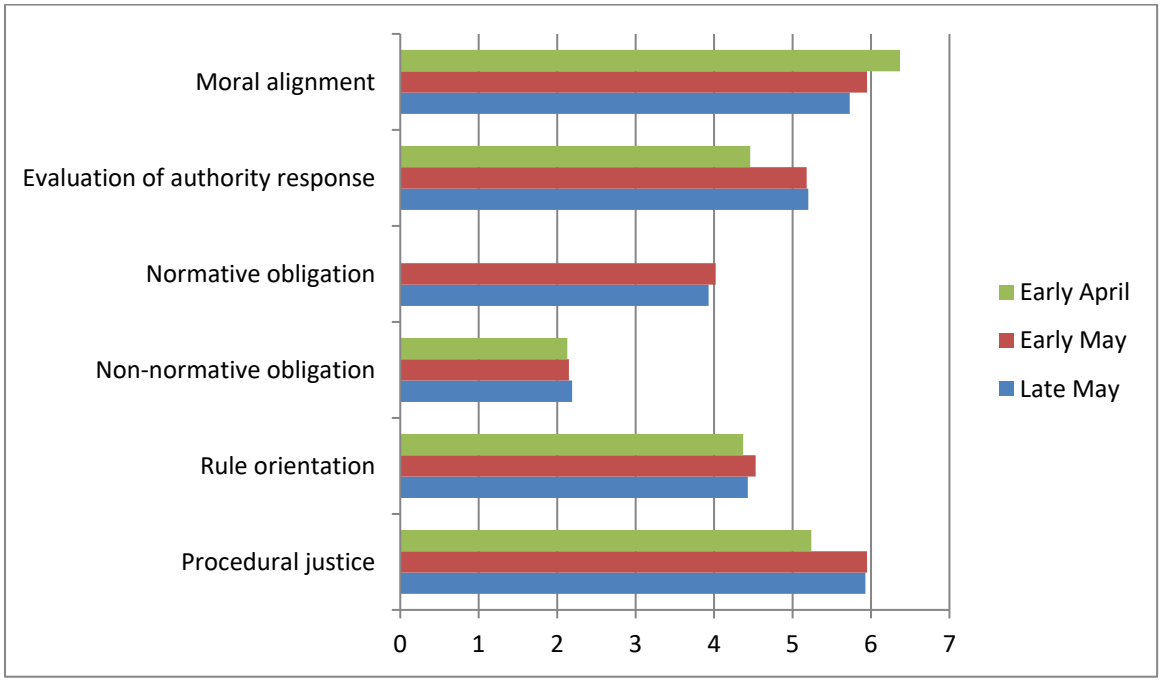


Secondly, it is telling to compare citizens' reported opportunities for violating safe-distance measures. From early to late May, Dutch citizens reported increasing opportunities for violating social distancing measures, b = -0.23, robust SE = 0.06, p < .001 (Figure 3). Their reported opportunities were considerably higher than those observed in the April survey, when stricter measures were in

force. Apparently, as the "intelligent lockdown" is loosened, Dutch citizens are confronted with greater opportunities to come at an unsafe distance of others. This is also suggested by the notion that social norms for keeping a safe distance from others seemed to decline somewhat between early and late May, b = 0.10, robust SE = 0.05, p = .032.

Figure 4.

Substantive support, early April – late May.

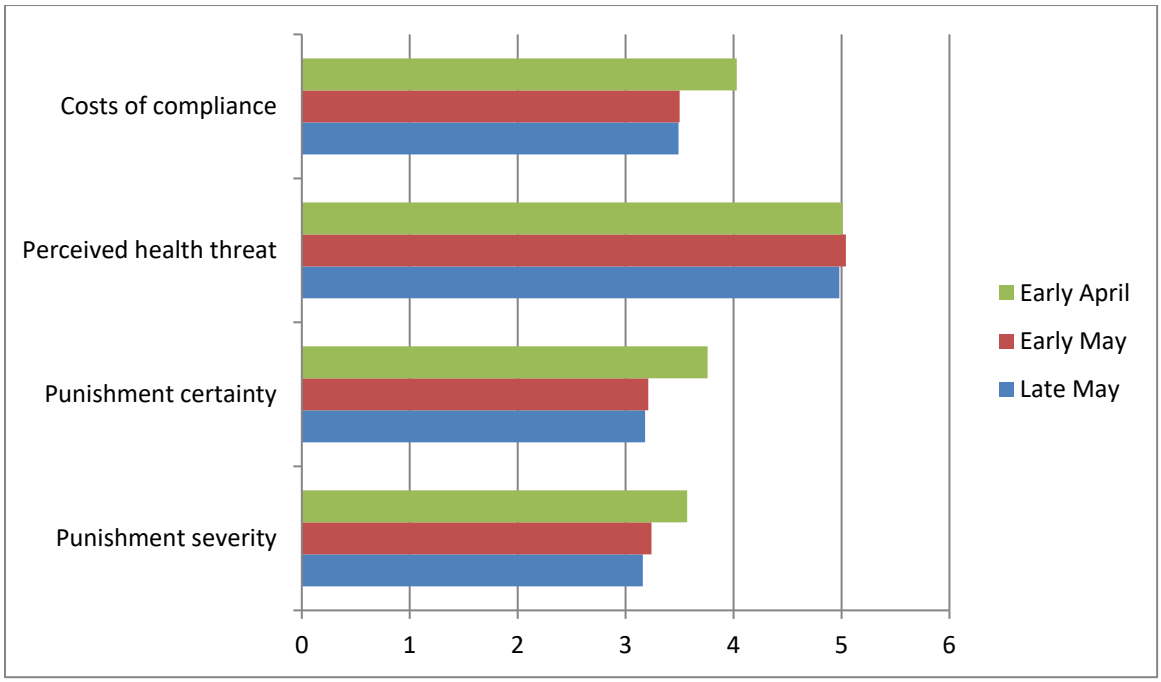


It also may be the case, however, that the support of Dutch citizens for safe-distance measures is declining (Figure 4). Indeed, from early to late May, Dutch citizens showed a decrease in reported moral alignment with safe-distancing measures, b = 0.22, robust SE = 0.06, $p < .001$ (see Figure 4). Their moral belief in these measures across the month of May also seems to be lower than the level we observed early April. Similarly, such a comparison also indicated a small, but significant decrease in their reported normative obligation to (unquestioningly) obey the authorities handling the Coronavirus, b = 0.09, robust SE = 0.03, p = .006 (not measured in the April survey). Together, this pattern seems to suggest that support for safe-distance measures is slowly declining. A different pattern emerged for citizens' evaluations of the authority response to the COVID-19 virus, and the procedural fairness of its enforcement. Here, no differences were observed in May (authority

response: b = -0.02, robust SE = 0.06, p = .73; procedural justice: b = 0.01, robust SE = 0.05, p = .74), but perceptions seem considerably more favorable than in April. There were no clear indications in May of a change in citizens' non-normative obligation to obey the authorities (i.e., obedience out of fear, b = -0.06, robust SE = 0.03, p = .09), or their obedience toward legal rules in general (b = 0.10, robust SE = 0.05, p = .06).

Figure 5.

Perceptions of costs and benefits and enforcement of compliance, early April – late May.



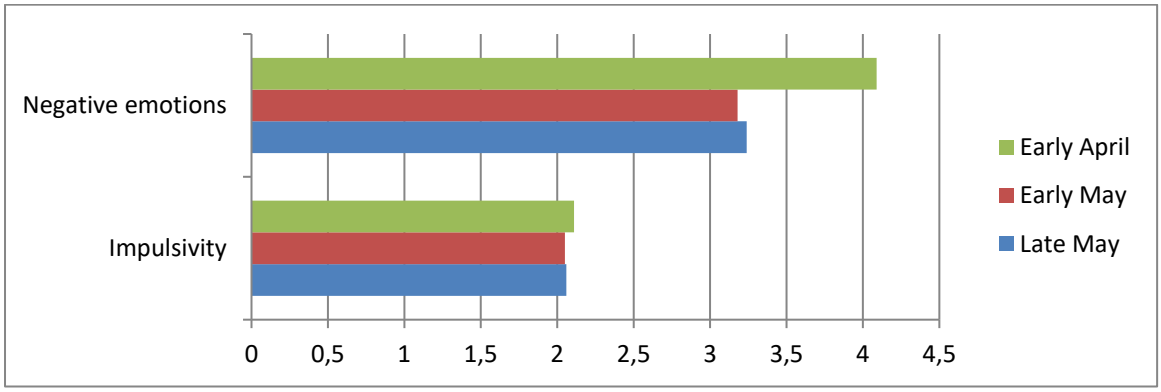
Lastly, Figure 5 displays the evolution of perceptions of the cost and benefits of compliance, and perceptions related to the enforcement of mitigation measures. There were no indications that Dutch citizens perceived greater costs of compliance during the course of May (b = 0.01, robust SE = 0.06, p = .81); however, their perceived costs seemed to be lower than observed in early April. With regard to their perceptions of the threat of the COVID-19 virus, these also did not change during the course of May (b = 0.04, robust SE = 0.06, p = .53); indeed, their threat perceptions seemed very similar to those observed in the April survey. With regard to the enforcement of safe-distance measures, the May surveys also indicated no significant changes in the perceived certainty (b = 0.02,

robust SE = 0.07, p = .76) or severity (b = 0.10, robust SE = 0.06, p = .09) of punishment for violating the measures. However, relative to April, deterrence perceptions did seem considerably lower.

A final notable difference concerns citizens' reported negative emotions (Figure 6). There were no indications that negative emotions grew or decreased significantly throughout the month of May (b = -0.08, robust SE = 0.06, p = .15); however, the levels of reported negative emotion seem considerably lower than in early April. There were no indications of differences in impulsivity between the May samples (b = -0.01, robust SE = 0.04, p = .81), or those in April.

Figure 6.

Negative emotions and impulsivity, early April – late May.



In sum, there were some indications that compliance with safe-distance measures is slowly, but significantly decreasing. Moreover, there were indications that some of the key resources that sustain compliance (according to our regression models) are slowly eroding – including citizens' practical capacity to comply, their moral alignment with safe-distance measures, and social norms with regard to distancing. At the same time, it appears that citizens are increasingly confronted with opportunities for violating such measures, which (according to our analyses) may undermine compliance. To put these observations into perspective, it is firstly important no note that Dutch citizens' (self-reported) compliance with mitigation measures continues to be high in absolute terms; as do the levels of the resources that sustain it: indeed, the decreases that we observe are small, and their significance also reflects statistical power. Moreover, other key resources show no sign of eroding, like the perceived health threat of the virus, or personal rule orientation.

Discussion

Mitigating COVID-19 in the "1.5 meter society"

In the present research, we firstly aimed to identify if the understand which processes sustained citizens' (self-reported) compliance with COVID-19 mitigation measures as the Netherlands moved out of the "intelligent lockdown", and into the "1.5 meter society". For the most, the findings from our surveys indicate that the resources that sustain compliance in the "1.5 meter society" in May were similar to those observed during the "intelligent lockdown" in April: practical capacities for complying, and (to a lesser extent) opportunities for not doing so; personal factors such as one's stance toward the epidemic, the measures, and legal rules in general, and impulsivity. But although the resources that sustain compliance are similar, their supply seems to have diminished during the course of May, and seemingly, relative to April. Citizens report a slowly decreasing capacity to comply, and increasing opportunities for violating mitigation measures. There also are indications that their support for safe-distance measures is slowly decreasing, as are norms for complying within their environment. It is likely, however, that such resources will come to be in shorter supply in the future, as mitigation measures are further loosened. To the extent that these processes erode social distancing, this may open the door for a resurgence of infections.

At present, however, we observe no indications that Dutch citizens' (self-reported) compliance is strongly decreasing. Their capacity to comply and support for the measures remains high in absolute terms; moreover, perceiving more *opportunities* to violate need not imply that people effectively *make use* of these. Indeed, as some resources that sustain compliance decline, other resources may rise in prominence, such as personal orientation towards rules, or (low) impulsivity. Indeed, the results of the May surveys provide some indications that as the Netherlands moves out of the "intelligent lockdown", and into the "1.5 meter society", personal factors may come to play a greater role in decisions to comply. Within these recent surveys, rule orientation, or individuals' generalized belief in the acceptability of violating legal rules, consistently predicted greater compliance with safe-distance measures. There also were indications that personal risk factors, such

as age and health issues placing oneself at risk, may be associated with compliance. To further understand these processes, our research will continue to monitor these developments across the upcoming months.

What lessons for policy can be learned from the present findings? In line with our previous studies into compliance with COVID-19 mitigation measures (e.g., Kooistra et al. 2020, on the United Kingdom; Kuiper et al. 2020, on the Netherlands; van Rooij et al. 2020, on the United States), our recent surveys in the Netherlands underline the critical role of measures that increase the practical capacity of citizens to comply with mitigation measures. This firstly includes knowledge of what the current measures ask of them, but also resources that make it easier for them to comply with these measures. This underlines the importance of clear and unambiguous communication about what mitigation measures require from citizens. Moreover, it highlights the importance of supportive measures that increase citizens' capacity to comply, or measures that restrict close contact and thereby reduce their opportunities to violate. In this regard, the introduction of technological aids (e.g., social distancing applications), or innovations in the arrangement of work, education, and the physical environment (e.g., distance work, e-learning, contact-minimizing layouts) are especially important. At the same time, the present findings underline that the perceived health threat of COVID-19 and moral belief in the importance of safe-distance measures remain important resources for compliance. This underlines the importance of continuing to stress the ongoing risk of the COVID-19 pandemic (despite of the current lull in cases), as well as citizens' moral obligation towards vulnerable others.

Limitations

We must acknowledge some limitations to the present study, as well as to our approach in this working paper. Firstly, our surveys rely on self-reported compliance data, which may be subject to response biases, such as imperfect recall or social desirability bias (Bauhoff 2011, Van de Mortel 2008). We do note, however, that the finding of high self-reported compliance is in line with objective data from Google COVID19 Community Mobility[ii], which in May continued to show a large decrease in human activity trends compared to data from before the pandemic – for example, in retail and

recreation, use of transit stations, and visits to workplaces (but not, coincidentally, in the use of parks, where a large *increase* is observed, in line with what is permitted under the relatively lenient Dutch mitigation measures). Furthermore, prior research shows that there can be strong concordance between self-reported and objective compliance measures when surveys are used (for an overview, see Kuiper et al. 2020, p. 29). Particularly relevant is a recent study that demonstrated that social desirability bias did not inflate the estimates of compliance with COVID-19 measures in online surveys (Larsen, Nyrup, and Bang Petersen 2020).

A second limitation concerns our comparison with findings from our previous survey, conducted in early April. Whereas both May surveys utilized a representative sample, this was not the case for the April survey. Moreover, as noted, due to the more stringent measures that were in force in April, our previous survey did not focus exclusively on safe-distance measures, nor were its measures for capturing these as fine-grained as in the May surveys. As such, differences to April may also be due to differences in measurement or sample composition. It is for this reason that these data have only been presented for illustrative purposes.

Finally, the analyses presented in this working paper focus solely on main effects, and do not yet explore interactions or structural models. We will explore these in detail in a future manuscript.

Conclusion

During the "intelligent lockdown" in the Netherlands, Dutch citizens were allowed greater freedom of movement than in other countries. In doing so, the Dutch authorities have banked on citizens' own responsibility and sense of self-discipline. As the Netherlands emerge from the "intelligent lockdown", these resources may be critical for the continuing success of COVID-19 mitigation measures – particularly in light of the decreasing capacity for distancing oneself from others, and the increasing opportunities for not doing so.

The results of the two surveys that we conducted during the month of May indicate that compliance with mitigation measures among Dutch citizens is slowly decreasing, as are some of the key resources that sustain it: citizens' capacity to comply, support for mitigation measures, and

conversely, increasing opportunities for violating. Nevertheless, in absolute terms, citizens continue to report high levels of compliance, and some resources (like personal orientation toward rules) seem to rise in prominence. A broader time frame may be necessary to understand how these developments may shape compliance with mitigation measures in the future. For this reason, we will continue to monitor these developments in June, as the "1.5 meter society" continues to unfold.

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Appendix A.1

Kendall's tau correlations between demographic variables and compliance, Early May (May survey 1, N = 984)

	Age	Gender	Employed	Education	Care for COVID	Minority	SES pre-COVID-19	SES change	Health issues self	Health issues other	Trust in science	Trust in media	Knowledge of measures
Gender	-.183**												
Employed	-.143**	-.114**											
Education	-.137**	-.004	.309**										
Care for COVID	-.071**	.089**	.119**	.049									
Minority	-.043	-.017	.024	-.041	.068*								
SES pre-COVID-19	.044	-.073*	.209**	.280**	.032	-.070*							
SES change	.007	-.051	.003	.078*	.030	-.001	-.072*						
Health issues self	.218**	-.043	-.175**	-.013	.011	.047	-.146**	-.053					
Health issues other	.017	.114**	-.027	-.009	-.012	.035	-.065*	-.034	.242**				
Trust in science	.008	-.001	.067*	.108**	.010	-.123**	.152**	.083**	-.038	-.042			
Trust in media	.064*	-.015	.008	.023	.005	.005	.058*	.066*	-.036	-.052	.270**		
Knowledge of measures	.027	.014	.031	.016	.025	.017	-.018	.036	.046	.043	.058*	.054	
Compliance	.152**	.044	-.081**	.018	-.090**	-.054*	.011	.008	.103**	.030	.135*	.031	.067*

Nb. * – Correlation is significant at the .05 level. ** – Correlation is significant at the .01 level. Gender – Female as reference category. Ethnicity – *N* = 946

Appendix A.2

Kendall's tau correlations between demographic variables and compliance, Late May (May survey 2, N = 1021)

	Age	Gender	Employed	Education	Care for COVID	Minority	SES pre-COVID-19	SES change	Health issues self	Health issues other	Trust in science	Trust in media	Knowledge of measures
Gender	-.230**												
Employed	-.141**	-.115**											
Education	-.125**	-.031	.264**										
Care for COVID	-.093**	.063*	.146**	.047									
Minority	-.065*	.018	-.064*	-.002	-.011								
SES pre-COVID-19	-.024	-.064*	.209**	.279**	.027	-.079**							
SES change	-.039	.000	.028	-.017	.089**	-.015	-.090**						
Health issues self	.203**	.051	-.215**	-.088**	.012	.034	-.160**	-.026					
Health issues other	.022	.149**	-.067*	-.014	.071*	.003	-.063*	-.052	.301**				
Trust in science	.020	.018	-.002	.087**	.006	-.121**	.125**	.075**	-.004	.010			
Trust in media	.118**	-.006	-.024	.007	-.013	-.068*	.041	.065*	.019	-.069*	.319**		
Knowledge of measures	.043	.034	-.024	.038	.034	-.002	.005	-.040	.034	.070*	.075**	.071*	
Compliance	.128**	.072**	-.108**	-.011	-.049	-.009	.001	-.026	.138**	.056*	.167**	.113**	.103**

Nb. * – Correlation is significant at the .05 level. ** – Correlation is significant at the .01 level. Gender – Female as reference category. Ethnicity – *N* = 985

Appendix B.1

Kendall's tau correlations between independent variables and compliance, Early May (May survey 1, N = 984)

	Perceived health threat	Moral alignment	Evaluat. auth. response	Costs of compliance	Punishment certainty	Punishment severity	Capacity to comply	Opportunity to violate	Descr. soc. norms	Impulsivity	Rule orientation	Procedural justice enf.	Normative oblig.	Non-normative oblig.	Clarity measures	Negative emotions	Conservatism
Moral alignment	.382**																
Evaluat. auth. response	.084**	.202**															
Costs of compliance	.070**	-.007	-.140**														
Punishment certainty	.080**	.054*	.056*	.070**													
Punishment severity	-.014	.046	.080**	-.126**	-.076**												
Capacity to comply	.145**	.259**	.114**	-.067**	.038	.008											
Opportunity to violate	-.035	-.010	.0014	.004	-.007	.053*	-.034										
Descr. social norms	.061**	.180**	.163**	-.078**	.059**	-.009	.318**	.017									
Impulsivity	-.080**	-.150**	-.048*	.061**	.022	-.012	-.155**	.070**	-.109**								
Rule orientation	.139**	.258**	.130**	-.103**	.004	.090**	.165**	-.045*	.109**	-.200**							
Procedural justice enf.	.035	.133**	.124**	.007	.004	-.016	.098**	.018	.118**	-.084**	.0036						
Normative oblig.	.238**	.363**	.247**	-.053*	.023	.065**	.245**	-.057*	.198**	-.162**	.319**	.188**					

Non-normative oblig.	-.073**	-.144**	-.050*	.105**	.149**	-.180**	-.068**	-.025	-.008	.137**	-.186**	-.128**	-.127**				
Clarity measures	.138**	.214**	.258**	-.074**	.017	.037	.220**	-.016	.150**	-.143**	.211**	.130**	.295**	-.148**			
Negative emotions	.144**	-.019	-.153**	.235**	.019	-.150**	-.072**	-.040	-.082**	.088**	-.119**	-.043	-.083**	.148**	-.122**		
Conservatism	.041	-.029	.088**	-.129**	.012	-.017	.034	-.018	.020	-.022	.039	-.013	.082**	.096**	.022	-.063*	
Compliance	.261**	.323**	.076**	.013	.051*	.026	.417**	-.074**	.207**	-.205**	.207**	.072**	.262*	-.093**	.210**	-.024	-.009

Nb. * – Correlation is significant at the .05 level. ** – Correlation is significant at the .01 level. Gender – Female as reference category. Conservative – N = 712

Appendix B.2

Kendall's tau correlations between independent variables and compliance, Late May (May survey 2, N = 1021)

	Perceived health threat	Moral alignment	Evaluat. auth. response	Costs of compliance	Punishment certainty	Punishment severity	Capacity to comply	Opportunity to violate	Descr. soc. norms	Impulsivity	Rule orientation	Procedural justice enf.	Normative oblig.	Non-normative oblig.	Clarity measures	Negative emotions	Conservatism
Moral alignment	.459**																
Evaluat. auth. response	.205**	.294**															
Costs of compliance	.074**	.004	-.101**														
Punishment certainty	.092**	.051*	.074**	.116**													
Punishment severity	-.023	.035	.048*	-.126**	-.091**												
Capacity to comply	.181**	.246**	.212**	-.078**	.011	.024											
Opportunity to violate	.006	.010	.029	-.022	-.014	-.004	.023										
Descr. social norms	.109**	.197**	.239**	-.054*	.057*	.006	.374**	.086**									
Impulsivity	-.084**	-.143**	-.044	.043	.048*	.009	-.118**	.066**	-.084**								
Rule orientation	.150**	.210**	.128**	-.023	.002	.028	.156**	-.033	.068**	-.165**							
Procedural justice enf.	.079**	.107**	.103**	-.032	-.023	-.037	.071**	-.007	.083**	-.109**	.060**						
Normative oblig.	.293**	.355**	.282**	-.010	.028	.001	.255**	.025	.203**	-.121**	.262**	.132**					

Non-normative oblig.	-.018	-.135**	-.115**	.137**	.138**	-.135**	-.027	-.021	-.033	.114**	-.126**	-.131**	-.050*				
Clarity measures	.242**	.325**	.331**	-.109**	.022	.069**	.260**	.016	.191**	-.136**	.241**	.107**	.311**	-.093**			
Negative emotions	.109**	-.034	-.123**	.297**	.082**	-.190**	-.075**	-.057**	-.059**	.097**	-.084**	-.020	-.021	.172**	-.111**		
Conservatism	.047	-.029	.001	-.022	.005	-.045	.057	-.001	-.022	.016	.031	-.066*	.054	.095**	.033	-.011	
Compliance	.318**	.350**	.184**	.007	.034	-.008	.418**	-.055*	.255**	-.185**	.214**	.077**	.295*	-.045	.262**	.010	.010

Nb. * – Correlation is significant at the .05 level. ** – Correlation is significant at the .01 level. Gender – Female as reference category. Conservative – N = 710

[i] https://www.rijksoverheid.nl/onderwerpen/coronavirus-covid-19/nederlandse-maatregelen-tegen-het-coronavirus/veranderingen-na-11-mei

[ii] https://www.gstatic.com/covid19/mobility/2020-05-29_NL_Mobility_Report_nl.pdf