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Public acceptance of Covid-19 lockdown scenarios

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By mid-March 2020, most countries had implemented nationwide lockdown policies aimed at decelerating the spread of SARS-CoV-2. At that time, nobody knew how long these policies would have to remain in force and whether they would have to be extended, intensified or made more flexible. The present study aimed to illuminate how the general public in Germany reacted to the prospect of increasing the length, the intensity and/or the flexibility of distancing rules implied by different lockdown scenarios. Endorsement of and compliance with five specific lockdown scenarios were assessed in a large (N = 14,433) German sample. Results showed that lockdown length affected respondents' reactions much more strongly than intensity or flexibility. Additional analyses (i.e., mixture distribution modelling) showed that half of the respondents rejected any further extensions or intensifications, while 20% would endorse long-term strategies if necessary. We argue that policy-makers and political communicators should take the public's endorsement of and compliance with such scenarios into account, as should simulations predicting the effects of different lockdown scenarios.

Keywords: Covid-19; Lockdown; Endorsement; Compliance.

Until a cure or vaccine against the Covid-19 disease has been found, non-pharmaceutical measures, such as case isolation, school closures, banning mass gatherings and public events, and mobility restrictions appear to be the best strategy to decelerate the spread of SARS-CoV-2 and, thus, to reduce fatalities and a collapse of national healthcare systems (Centers for Disease Control and Prevention, 2020; Ferguson et al., 2020; Prem et al., 2020; Robert-Koch-Institut, 2020). By the end of March 2020, governmental orders regulating these non-pharmaceutical measures had been implemented in many countries across the world (Cohen & Kupferschmidt, 2020, March 18). Yet, scientists were unsure how long these measures would need to stay in place. In Germany, the federal government introduced (and then gradually intensified and extended) a national lockdown on March 9, 2020. Initially, this lockdown was limited until March 31. On April 1, the German federal government extended it until April 19 and, after that, for another 3 weeks. While this strategy indeed decelerated the reproduction rate of SARS-CoV-2 (Buchholz et al., 2020; Kraemer et al., 2020), scientists have also repeatedly noted that longer and more intense measures would be necessary to prevent a collapse of the healthcare system due to an over-demand of intensive care beds (Ferguson et al., 2020).

Therefore, during the second half of March 2020, different lockdown scenarios were proposed and discussed, not only among scientists, but also in the media (Endt et al., 2020, March 24). Due to the lack of observational data, the effectiveness of these scenarios was evaluated via simulation studies (e.g., An der Heiden & Buchholz, 2020; Neher et al., 2020). These simulations rest on the assumption that the general public actually accepts and complies with the mobility restrictions and distancing rules implied by a respective scenario. Yet, at the time these scenarios were discussed, nobody knew how the public would endorse and comply with them. Given that physical/social distancing is a psychological burden for

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Primary data that are necessary to reproduce our results are available on the OSF platform (https://osf.io/un5av/).

many individuals (Atchison et al., 2020; Brooks, 2020), it was unclear whether the public would actually endorse and comply with an extension of the existing distancing rules.

The present study was designed (i) to illuminate the public's reaction to different lockdown scenarios, (ii) to analyse which feature of these scenarios (i.e., length, intensity, flexibility) affected reactions more or less strongly, and (iii) to explore qualitatively distinct patterns of endorsement in the general public. The specific scenarios we used here were adapted from an article that appeared in a large German daily newspaper (Endt et al., 2020, March 24). The following list gives an overview of the scenarios and of how they differ from each other.

- *Status Quo*: Lockdown and distancing rules remain in force until April 20 and will be gradually relaxed afterwards.
- *Status-Quo Extension*: Lockdown and distancing rules will be extended (but not intensified) until January 31, 2021. After that, they will be gradually relaxed.
- *Intensified Extension*: Lockdown and distancing rules will be intensified and extended: Leaving one's home is allowed only if absolutely necessary; social contacts have to be reduced further. These intensified rules remain in force at least until January 31, 2021.
- *Short-Term Curfew*: Lockdown and distancing rules will be intensified for a short time. A rigorous curfew will be imposed; citizens are only allowed to leave their homes with official consent. Violations are severely punished. After April 20, these rules will be relaxed.
- *Adaptive Triggering*: Lockdown/distancing rules are alternately enforced and relaxed, depending on the number of infections and healthcare system demands. This "on–off" strategy will be executed at least until 2021.

Theoretical considerations

Although this research was designed to be exploratory, there are a number of concepts and theoretical arguments in the psychological literature that are relevant. A *first* relevant concept is the status-quo bias (sometimes also referred to as psychological inertia; see Gal, 2006): People tend to resist political, organisational, or economic reforms and prefer the status quo over any changes—even though these changes may be beneficial for them—whenever there is some degree of uncertainty about the outcomes of these changes (Fernandez & Rodrik, 1991; for prior research on status-quo biases in judgement and decision-making research, see Samuelson & Zeckhauser, 1988). At the time our research was carried out, that is, between April 1 and April 5, 2020, the *status quo* was a temporary lockdown in Germany, scheduled until April 19 for the time being. Thus, a status-quo bias would be reflected in a general unwillingness to accept any further intensifications or extensions of the distancing rules that were in force at that time.

A *second* relevant concept is the affective forecasting bias (Wilson & Gilbert, 2003): when people are asked to predict their future emotional experiences, they typically overestimate the intensity and the durability of these emotions. Stated differently, when thinking about future (positive or negative) events, people underestimate how quickly and easily they adapt to these events (Gilbert, 1991). Assuming that an intensification or extension of distancing rules represents a negative event, we would expect lower levels of endorsement for lockdown scenarios that imply intensifications or extensions because people exaggerate the intensity and durability of their negative emotional reactions to them.

A *third* relevant theory is Construal Level Theory (CLT; see Liberman & Trope, 1998; Trope & Liberman, 2003). In short, this theory argues that socially, spatially, or temporally distant events are cognitively construed in more abstract, generalised, fundamental terms (i.e., high-level construal), whereas close events are construed in more concrete, specific, operational terms (i.e., low-level construal). According to this theory, thinking about long-term lockdown scenarios should make people more aware of the fundamental aspects of distancing (e.g., how not seeing one's friends and family thwarts affiliation needs, how a curfew can infringe one's basic citizen rights, how travel restrictions hinder economic growth, etc.), whereas thinking about short-term lockdown scenarios should make people consider more specific, operational aspects (e.g., what would be a good time to go shopping, when would be the next opportunity to meet one's friends and family). Arguably, considering fundamental problems should make people more critical about distancing than considering operational problems (see Liberman & Trope, 1998). Therefore, CLT would predict lower endorsement for long-term lockdown scenarios than for short-term scenarios.

Status-quo bias, affective forecasting, and construal level are social-cognitive concepts. But endorsing physical/social distancing has a moral aspect, too: complying with distancing norms—not meeting one's friends and family to help flatten the infection curve—implies sacrificing individual benefits for the sake of the common good, that is, to prevent a collapse of the national healthcare system. Therefore, scenarios that imply harsh or extended physical distancing rules should be more likely to be accepted by people who understand the social dilemma inherent in these rules and the moral value of preferring collective over individual outcomes. This is captured by a personality trait referred to as "justice sensitivity"—defined as the subjective relative importance that justice plays in one's everyday life (for a review, see Baumert & Schmitt, 2016). People differ in their justice sensitivity from a victim's perspective (victim sensitivity; VS), an observer's perspective (observer sensitivity; OS), a beneficiary's perspective (beneficiary sensitivity; BS), and a perpetrator's perspective (perpetrator sensitivity; PS; see Schmitt et al., 2010). Observer, beneficiary, and perpetrator sensitivity (OS, BS, PS) reflect an other-oriented concern for justice: Individuals scoring high on these traits observe injustices occurring to other people more frequently, they experience stronger emotional reactions toward such injustices, and they are more strongly motivated to redress or prevent these injustices compared to individuals scoring low on these traits. Victim sensitivity (VS), on the other hand, reflects a self-related concern for (in)justice: people scoring high on VS anxiously expect and try to avoid being treated unfairly by other people. Corroborating this conceptualization, research has shown that OS, BS and PS predict pro-social behaviour such as moral courage (Baumert et al., 2013) or solidarity with the disadvantaged (e.g., Gollwitzer et al., 2005), while VS predicts mistrust and uncooperative behaviour, both in interpersonal situations and in intergroup situations (Gollwitzer et al., 2013). Therefore, we predict that people high in OS, BS and/or PS should be more likely to endorse an extended and/or intensified lockdown than people scoring low on these traits. Victim sensitivity (VS), however, should be unrelated to such endorsement.

METHODS

Materials and measures

After giving their informed consent, participants read a brief description of the five lockdown scenarios as listed above (the full text for each scenario and all items and response scales are provided in Appendix B). Following each scenario, participants rated (i) their endorsement of the respective scenario ("*I think this strategy is … 1 = not at all right, … , 6 = absolutely right*"), (ii) the subjectively perceived riskiness of each scenario ("*I consider this strategy to be … 1 = not at all risky, … , 6 = very risky*"), (iii) their willingness to comply with the distancing rules implied by each scenario ("*I myself will … 1=rather not, … , 6=certainly … comply with the restrictions linked to this strategy*"), (iv) their friends' willingness to comply with these rules, and (v) the extent to which they thought the general public would accept these rules. Here, we focus on participants' endorsement ratings and their willingness to comply with the respective distancing rules. Results for the other three variables will be analysed separately and reported elsewhere.

All variables (except demographics) were measured on a 6-point Likert-type response scale. Participants could alternatively choose a response labelled "I do not or cannot give an answer to this question." This response was treated as missing. To avoid order effects, the order in which scenarios were presented to participants was counterbalanced between participants.

After responding to the five scenarios, participants received a short version of the Justice Sensitivity Inventory (Baumert et al., 2014), in which each of the four justice sensitivity perspectives is measured with two items (victim/VS: "*It makes me angry when others are undeservingly better off than me*;" "*It worries me when I have to work hard for things that come easily to others*;" observer/OS: "*I am upset when someone is undeservingly worse off than others*;" "*It worries me when someone has to work hard for things that come easily to others*;" beneficiary/BS: "*I feel guilty when I am better off than others for no reason*;" "*It bothers me when things come easily to me that others have to work hard for*;" perpetrator/PS: "*I feel guilty when I enrich myself at the cost of others*;" "*It bothers me when I use tricks to achieve something while others have to struggle for it*."). Prior research shows that the short scales' reliability and validity indices are comparable to those achieved with longer (i.e., 10-item) scales (Baumert et al., 2014; Rothmund et al., 2014). In the present sample, inter-item correlations were .69, .62, .77, and .66 for VS, OS, BS and PS, respectively.

Finally, participants were asked about their age, gender, proficiency of the German language, education level and whether or not they worked in the medical/healthcare sector. In addition, participants were asked whether they would categorise themselves as a Covid-19 risk group member (yes/no). Due to privacy considerations, no specific information about objective risks was assessed. However, given that our self-categorization was strongly associated with age ($r = -.36$), we believe that our measure yields valid information: Among all participants older than 71 years, a majority (74%) self-categorised as being a risk-group member, while among participants younger than 21, only 6% did so.

All procedures performed in the present study were in accordance with the ethical standards of the German Psychological Society (see https://www.dgps.de/index.php?id=85) and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all participants included in the study.

Sample and recruitment

The study was advertised in various online forums, on social media channels, in research-related social networks, on the website of a large German public broadcasting company (*Bayerischer Rundfunk*; www.br24.de), and as a push notification on Germany's largest national public news app (www.tagesschau.de). The study was online between April 1 and April 5, 2020. Shortly before (March 31), the German federal government announced that the national lockdown plan would be extended by 3 weeks until April 19, 2020. No changes regarding Germany's lockdown policy were announced or implemented during the 5 days in which this study was fielded.

During field time, the link to the study was clicked 41,904 times. On the landing page, participants were asked about their consent to participate. In total, 21,613 respondents gave their consent. Of all people who started the survey, 15,589 finished it (72%).

Careless responding was defined as giving the same response to all five questions within one scenario (zero-variance responding; see Meade & Craig, 2012). In line with common practice, 1546 cases with zero-variance responding on at least one of the five scenarios were discarded. Furthermore, 433 cases with more than 50% missing values across all measured variables were discarded.

The final sample consisted of 14,433 cases (59% female, 39% male, 0.4% diverse, 1.7% did not report their gender). Ages ranged between 10 and 88 years ($M = 44.6$, $SD = 13.6$). Twenty-one percent self-categorised as belonging to a Covid-19 risk group. Eleven percent reported working in the medical/health care sector. Regarding education level in the final sample, compared to the German population (presented in parentheses), 0.2% (4%) had no school degree, 3% (30.4%) had a basic school qualification (*Hauptschulabschluss*), 13% (23.1%) had a secondary school certificate (*Realschulabschluss*), 16% (31.9%) had a university entrance degree (*Abitur*), 18% (47.5%) completed a vocational training degree, and 49% (17.6%) had a higher education degree (e.g., Bachelor or Master). Regarding age, our sample was comparable to the German population, but women and people with higher formal education were overrepresented. On average, 3% of all responses were missing. Given the large sample size and the low number of missing values, imputation was considered unnecessary here.

RESULTS

Central tendency statistics (mean, trimmed mean, median), dispersion statistics (variance, standard deviation, interquartile range), skewness and kurtosis coefficients for the two central variables, endorsement and compliance, are reported in Table A1 in Appendix A. Bivariate correlations between endorsement and compliance ranged between .31 (for the status-quo scenario) and .58 (for the intensified extension scenario).

Reactions to scenarios

Taking the skewed distribution of our measures into account (see Table A1), participants' ratings were trichotomized into "positive endorsement/compliance" (response values 5 and 6), "negative endorsement/compliance" (response values 1 and 2) and "indifference" (response values 3 and 4). The results are displayed in Figure 1.

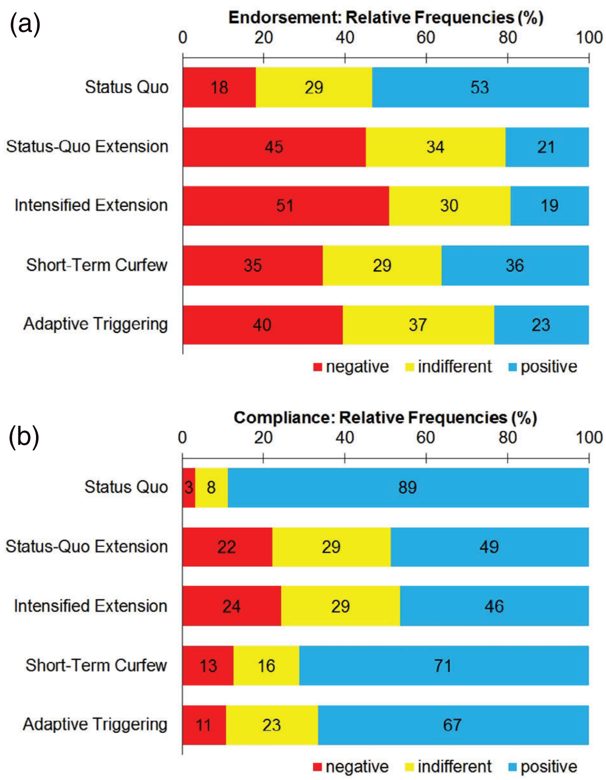

Figure 1. Relative frequency of respondents who responded positively (blue/medium grey), negatively (red/dark grey), or indifferently (yellow/light grey) to the five scenarios regarding (a) endorsement of and (b) compliance with mobility restrictions and distancing rules implied by each scenario. [Colour figure can be viewed at wileyonlinelibrary.com].

Endorsement

Figure 1a shows that most respondents endorsed the status quo more than any alteration of it. Apart from the status quo, endorsement was highest for the strictest (yet also most short-dated) "short-term curfew" scenario and lowest for the "intensified extension" scenario.

Compliance

Figure 1b shows that a large majority expressed compliance with the mobility restrictions and physical distancing rules that were in force at the beginning of April 2020. Willingness to comply was also relatively high for "short-term curfew" and "adaptive triggering." By contrast, compliance was lowest for the two extension scenarios.

TABLE 1
Coding scheme for multilevel models

	D1: Alteration	*D2: Length*	*D3: Intensity*	*D4: Flexibility*
Status Quo	0	0	0	0
Status-Quo extension	1	1	0	0
Intensified extension	1	1	1	0
Short-term curfew	1	0	1	0
Adaptive triggering	1	1	1	1

Features predicting endorsement/compliance

Mobility restrictions and distancing rules implied by the five scenarios differed with regard to (i) *length* ("status quo" and "short-term curfew" being the only scenarios promising a relaxation of distancing rules after April 20), (ii) *intensity* ("status quo" and "status-quo extension" being the only scenarios foregoing intensified distancing rules), and (iii) *flexibility* ("adaptive triggering" being the only scenario that allowed a certain degree of flexibility). In addition, (iv) the four scenarios necessarily implied an *alteration* of the status quo. To elucidate how each of these four features affected respondents' average endorsement and compliance, we ran multilevel models for within-person data (Snijders & Bosker, 2011) with endorsement of/compliance with the status quo as the baseline and four dummy variables reflecting the effects of alteration, length, intensity, and flexibility on intra-individual differences from the baseline (see Table 1).

Specifically, Dummy variable D1 indicates the average intra-individual difference between scenarios that differ from the status quo (therefore referred to as "*alteration*"). Dummy variable D2 indicates the average intra-individual difference between scenarios that differ from the status quo regarding lockdown *length*. Dummy variable D3 refers to the *intensity* of the lockdown, and Dummy variable D4 refers to whether or not the lockdown policy allows *flexibility* (as in the "adaptive triggering" scenario). Endorsement and compliance were used as continuous outcome variables. Dummy variables were entered simultaneously as fixed factors to model the unique effects of alteration, length, intensity and flexibility. Model parameters were estimated via maximum likelihood estimation. Regarding the random part of the model, no restrictions were imposed, so no assumptions could be violated (i.e., a "multivariate multilevel model" was used; see Snijders & Bosker, 2011). Analyses were run with IBM SPSS v25. Results for endorsement and compliance are reported in Tables 2 and 3.

Figure 2 displays Pseudo-R^2 estimates (i.e., effect sizes for Dummy variables) estimated indirectly from error variances (Snijders & Bosker, 2011): Models excluding one respective dummy variable were tested against the

TABLE 2
Results from the multilevel model predicting endorsement

			95% CI for B		
Term	*B*	*SE (B)*	*Lower bound*	*Upper bound*	*Pseudo-R^2*
Intercept (Status Quo)	4.278	0.014	4.251	4.304	
Alteration	−0.611	0.023	−0.656	−0.566	0.007
Length	−0.719	0.016	−0.750	−0.688	0.018
Intensity	−0.154	0.011	−0.176	−0.132	0.001
Flexibility	0.344	0.019	0.307	0.382	0.004

Note. N = 14,433. Effects were estimated using the maximum-likelihood estimator.

TABLE 3
Results from the multilevel model predicting compliance

			95% CI for B		
Term	*B*	*SE (B)*	*Lower bound*	*Upper bound*	*Pseudo-R^2*
Intercept (Status Quo)	5.445	0.008	5.429	5.462	
Alteration	−0.545	0.015	−0.575	−0.515	0.006
Length	−0.828	0.012	−0.852	−0.803	0.030
Intensity	−0.112	0.009	−0.130	−0.093	0.001
Flexibility	0.737	0.013	0.712	0.762	0.023

Note. N = 14,433. Effects were estimated using the maximum-likelihood estimator.

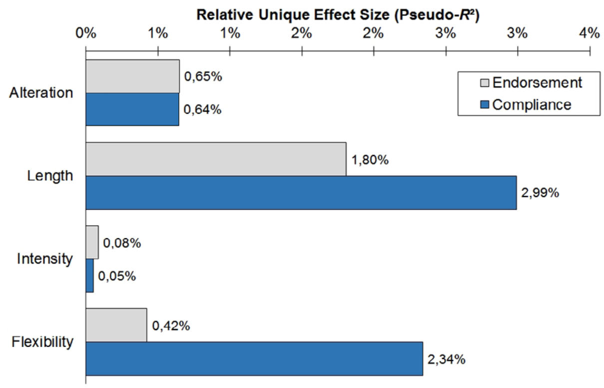

Figure 2. Relative unique effect sizes ("Pseudo-R^2") for each dummy variable (indicating intra-individual changes in endorsement and compliance between scenarios that differ from the status quo in one of the four features: alteration, length, intensity, flexibility). [Colour figure can be viewed at wileyonlinelibrary.com].

full model (including all dummy variables). In these models, the random slope variance was restricted to zero (i.e., random-intercept models), and parameters were estimated via restricted maximum likelihood estimation.

Three observations are noteworthy. First, length had the strongest impact on endorsement and compliance: Short-dated measures were preferred over long-term ones. Second, length matters far more than intensity;

TABLE 4
Fit indices for mixture distribution models

	Endorsement			*Compliance*		
	AIC	*BIC*	P_{mean}	*AIC*	*BIC*	P_{mean}
1 Class	145,939	146,022	1.000	96,349	96,431	1.000
2 Classes	138,187	138,361	0.919	94,012	94,185	0.943
3 Classes	136,857	137,122	0.842	93,040	93,303	0.886
4 Classes	136,692	137,046	0.764	92,872	93,225	0.772
5 Classes	136,606	137,051	0.682	92,826	93,270	0.677

Notes. N = 14,043 for endorsement; N = 13,566 for compliance. AIC = Akaike Information Criterion; BIC = Best Information Criterion; P_{mean} = average class membership probability.

in fact, intensity plays hardly any role, neither for endorsement nor for compliance. Third, flexibility affects compliance more strongly than endorsement: In other words, irrespective of length and intensity, respondents were more likely to comply with mobility restrictions and distancing rules in the context of flexible measures (i.e., "adaptive triggering") than in the context of non-flexible measures.

Endorsement patterns

The analyses reported so far provide a broad picture of respondents' reactions to different lockdown scenarios. What these analyses cannot tell is whether this broad picture applies to all segments in the population alike. The results reported so far may apply to a majority of respondents, but there may be other segments ("latent classes") with qualitatively different patterns of reactions towards the five lockdown scenarios.

To explore these patterns, trichotomized endorsement ratings (i.e., negative, indifferent, positive, see above) across all five scenarios were analysed with mixed partial credit models (Rost, 1990; Rost & Davier, 1995). Fit indices for different models (i.e., a 1-, 2-, 3-, 4-, or 5-class solution) are reported in Table 4. According to common conventions, the model with the lowest BIC value was selected (BIC_{min} criterion). Based on the BIC_{min} criterion, a 4-class solution fitted the data best. For these models, class-specific response probabilities for each of the three response categories were estimated (see Tables A2 and A3 in Appendix A). Here, we only report and discuss our results for "endorsement".[1] All analyses were run with *WINMIRA 2001* (von Davier, 2000).

Table 5 provides a simplified version of Table A2 (see Appendix A), displaying how the four latent classes differ from one another regarding their *positive endorsement* (denoted "+"), *negative endorsement* (denoted "−"), and *indifference* (denoted "0") across the five scenarios. In the description of the classes that follow, relations between class membership and person characteristics (i.e., demographics and justice sensitivity perspectives, the latter being dichotomized at the respective sample medians) are interpreted if the respective association coefficient (Cramér's V) was larger than .10. This was neither the case for gender (V = .035), age group (V = .047), education level (V = .060), medical/healthcare profession (V = .016), victim sensitivity (V = .079), observer sensitivity (V = .089), nor perpetrator sensitivity (V = .042). Therefore, only relationships between class membership and belonging (vs. not belonging) to a Covid-19 risk group (V = .104) and class membership and beneficiary sensitivity (V = .106) will be interpreted in the following description of the four latent classes.

TABLE 5
Patterns of endorsement for five scenarios in four latent classes

	Class 1 (43.6%)	*Class 2 (23.0%)*	*Class 3 (19.2%)*	*Class 4 (14.2%)*
Status Quo	+	+	−	+
Status-Quo extension	−	0	+	0
Intensified extension	−	0	+	0
Short-term curfew	−	+	+	−
Adaptive triggering	−	0	−	0

Note: + positive endorsement; − negative endorsement; 0 indifferent response.

Pattern 1 can be described as "endorsing the status-quo, but rejecting any further extensions or intensifications." The majority of all respondents (44%) belong to this latent class. More interestingly, respondents *not* belonging to a Covid-19 risk group are overrepresented in this class: Among respondents without a high Covid-19 risk (n = 10,816), almost half (47%) belong to this class, whereas among respondents who belong to a Covid-19 risk group (n = 2979), only 37% belong to this class.

[1] With regard to compliance, Table A4 suggests that classes differ mostly in how participants responded to the two long-term scenarios ("status-quo extension" and "intensified extension"). People in Class 1 are indifferent towards these two scenarios; people in Class 3 reject them, and people in Class 4 are indifferent particularly to the 'intensified extension' scenario. People in Class 2 report a high compliance with all five scenarios. Together, this analysis confirms one of our study's main findings, namely, that length matters more than intensity. Since this particular result does not offer any new insights, we focus on endorsement here.

Pattern 2 can be described as "preferring quick solutions over long-term measures." Respondents in this latent class are okay even with a hard curfew, as long as it will be relaxed again soon. Roughly one quarter of all respondents belong to this class. More importantly, 59.2% of all people in this class have a beneficiary sensitivity (BS) score that lies above the sample median; in other words, respondents high in BS—reflecting a genuine concern for justice as well as empathy with the disadvantaged—are more likely to support a hard curfew than respondents low in BS.

Pattern 3 reflects a "better safe than sorry" attitude. Respondents in this latent class endorse long and/or more intense measures, but they neither like the idea of relaxing distancing rules too soon (i.e., status quo) nor an "adaptive triggering" strategy. One fifth of all respondents belong to this class. Among respondents with an increased Covid-19 risk, 25% belong to this class; among respondents with no such risk, only 16% belong to this class. Moreover, 57.1% of all people in this class have a BS score above the sample median. In other words, people from a Covid-19 risk group or with high BS scores are overrepresented in this class: they are more likely to endorse intensifications and/or extensions.[2]

Pattern 4 can be described as "being indifferent to most policies, but rejecting harsh curfews". Respondents in this class would prefer a quick relaxation of distancing rules (i.e., status quo), they are indifferent about long-term oriented measures, but they dislike harsh distancing rules even if they were relaxed again soon. Only a minority of all respondents (14%) belongs to this class.

DISCUSSION

Our data show that most respondents endorsed the national lockdown policy that had been implemented by the German government on March 23, and that most reported complying with mobility restrictions and distancing rules implied by that policy. That said, our data also show that extensions and/or intensifications of a lockdown were seen more sceptically: A majority of respondents rejected any alteration from the distancing rules that were in place at the time our study was fielded. If anything, people preferred short-term oriented over long-term oriented strategies: Their willingness to comply even with a strongly intensified curfew—as they had been in force, for instance, in Spain at that time—would also be high, but only if these strict rules were to be relaxed soon. In addition, respondents also expressed compliance with an adaptive triggering strategy, that is, a scenario in which lockdowns alternate in severity depending on infection rates and demands of intensive care beds (Ferguson et al., 2020). What most respondents rejected were long-lasting mobility restrictions and distancing rules. In fact, as our analyses show, the length of these rules matters far more than their intensity, which, theoretically, is consistent with what Construal Level Theory would predict: Assuming that physical/social distancing thwarts a central human need (i.e., construed on a high level), being forced to not meet one's friends and families for several months (i.e., a large temporal distance) is perceived as particularly aversive. Notably, this effect existed above and beyond a mere status-quo bias.

However, this pattern of results did not apply to all individuals in our sample to the same extent: One subgroup (Class no. 3), representing roughly one fifth of all respondents, would endorse extended and/or more intense strategies while rejecting both the status quo policy as well as the "adaptive triggering" strategy for being too lenient. Notably, individuals belonging to a Covid-19 risk group were more likely to belong to this class compared to any other class. We did not find a latent class that rejected *any* kind of lockdown; however, most of our respondents belonged to a subgroup (Class no. 1) that endorsed the status quo while rejecting any kind of intensification and/or extension. This was, by far, the largest class, and respondents with an increased risk for Covid-19 were underrepresented in this class.

Finally, our results suggest that people's endorsement of distancing rules also depended on how they feel and think about justice and morality: People high in "beneficiary sensitivity"—a personality trait reflecting a genuine concern for justice and for the welfare of others (Baumert et al., 2014; Gollwitzer et al., 2005)—were more likely to endorse a "harsh but quick" (i.e., Class no. 2) and a "better safe than sorry" (i.e., Class no. 3) strategy. This suggests that endorsing these patterns reflects people's willingness to sacrifice their own individual outcomes for the collective good, that is, a prevention of a healthcare system collapse.

Limitations

These findings are informative for improving our understanding of how the public thinks and feels about different lockdown scenarios. That said, it should also be noted that our sample, while being large, cannot be regarded representative of the German population: Women and people with a higher formal education were overrepresented in our sample—a common problem in large-scale online surveys. The pattern of results, especially the results of our mixture distribution analysis, may have looked different in a more representative sample. In addition, the fact that we only used short scales (e.g., for

[2]This finding is mirrored in positive bivariate correlations between beneficiary sensitivity scores and respondents' endorsement for the "status-quo extension" ($r = .11$), the "intensified extension" ($r = .10$), and the "short-term curfew" scenarios ($r = .10$).

justice sensitivity) and sometimes even single-item measures (e.g., for endorsement of lockdown scenarios) should be noted as a methodological limitation of our study, as well as the fact that we cannot rule out social desirability artefacts due to our reliance on self-reports (e.g., regarding participants' compliance with distancing rules). Future research on this issue should try to obtain a more representative sample and apply a more rigorous assessment strategy. This might also ultimately increase effect sizes, which were small in the present study.

Although we made an effort to keep the five lockdown scenarios used here as plausible and comparable with one another as possible, participants might have inferred different information about the dangerousness of SARS-CoV-2 from the different scenarios: Specifically, participants might have been led to construe that in the status quo scenario, the virus causes fewer deaths than, for example, in the status-quo extension scenario (otherwise, the extension would not have been necessary). With the data collected here, we cannot test whether this is true, but future research may want to explicitly state that each scenario is built on exactly the same knowledge and assumptions about the virus and the disease.

CONCLUSIONS

Virologists and epidemiologists have repeatedly argued that lockdown policies would have to stay in place for a much longer time than planned, depending on how quickly SARS-CoV-2 reproduces and how close national healthcare systems are to a collapse. Our results suggest that further extending these restrictions may encounter resistance in large portions of the population and may reduce people's compliance with distancing rules. Current developments in Germany corroborate this assumption: Since mid-May 2020, some people in different German cities have been demonstrating against the current lockdown policy which they consider to be too restrictive. Worldwide anti-lockdown protests, in which people fight for "freedom rights," suggest that the psychological processes underlying Germans' reactions to lockdown policies are comparable to those in other cultures and countries.

These findings, although being a snapshot, have important implications both for simulation studies (in which the effectiveness of different lockdown scenarios is compared to each other, usually without taking the public's compliance with these scenarios into account) as well as for policy-making and political communication. Assuming that the public's strong resistance against long-term restrictions can be explained by construal level theory, according to which long-term scenarios make people worry about the fundamental aspects of physical/social distancing (e.g., the fact that basic needs are thwarted), these restrictions should be communicated either by shifting the focus more on their low-level construal implications (e.g., organising childcare, access to sanitizers, etc.), which are less threatening, or by providing counter-arguments on an equally high level of abstraction (e.g., the value of saving as many lives as possible; the collaborative fight against the virus, etc.). In any case, being mindful of the fact that people are so particularly sensitive to the length of lockdown measures (and not so much to their intensity) suggests that the public needs to be prepared very carefully for the fact that these lockdowns are likely to remain in force for a long time ahead.

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APPENDIX A

TABLE A1
Descriptive statistics for measured variables

Scenario	*Statistic*	*Endorsement*	*Compliance*
Status Quo	Mean	4.280	5.450
	95% CI for mean—lower bound	4.250	5.430
	95% CI for mean—upper bound	4.300	5.460
	5% trimmed mean	4.360	5.600
	Median	5.000	6.000
	Variance	2.661	1.020
	Standard deviation	1.631	1.010
	Interquartile range	3.000	1.000
	Skewness	−0.646	−2.425
	Kurtosis	−0.765	6.307
Status Quo extension	Mean	2.950	4.070
	95% CI for mean—lower bound	2.920	4.040
	95% CI for mean—upper bound	2.970	4.100
	5% Trimmed mean	2.880	4.130
	Median	3.000	4.000
	Variance	2.758	2.853
	Standard deviation	1.661	1.689
	Interquartile range	3.000	3.000
	Skewness	0.321	−0.507
	Kurtosis	−1.135	−0.992
Intensified extension	Mean	2.790	3.960
	95% CI for mean—lower bound	2.760	3.930
	95% CI for mean—upper bound	2.820	3.990
	5% Trimmed mean	2.710	4.010
	Median	2.000	4.000
	Variance	2.890	2.951
	Standard deviation	1.700	1.718
	Interquartile range	3.000	2.000
	Skewness	0.510	-0.418
	Kurtosis	−1.027	−1.112
Short-term curfew	Mean	3.510	4.790
	95% CI for mean—lower bound	3.480	4.770
	95% CI for mean—upper Bound	3.540	4.820
	5% Trimmed mean	3.510	4.940
	Median	4.000	5.000
	Variance	3.289	2.397
	Standard deviation	1.813	1.548
	Interquartile range	3.000	2.000
	Skewness	−0.074	−1.260
	Kurtosis	−1.388	0.445
Adaptive triggering	Mean	3.140	4.700
	95% CI for mean—lower bound	3.110	4.670
	95% CI for mean—upper bound	3.160	4.720
	5% Trimmed mean	3.100	4.830
	Median	3.000	5.000
	Variance	2.617	2.107
	Standard deviation	1.618	1.452
	Interquartile range	2.000	2.000
	Skewness	0.135	−1.115
	Kurtosis	−1.172	0.356

*Note. N*s vary between 14,4035 and 14,340.

TABLE A2
Class-specific response probabilities for endorsement [Colour table can be viewed at wileyonlinelibrary.com].

Scenario	Class 1 (43.6%)			Class 2 (23.0%)			Class 3 (19.2%)			Class 4 (14.2%)		
	-	0	+	-	0	+	-	0	+	-	0	+
Status Quo	.080	.247	.674	.118	.345	.537	.505	.208	.287	.149	.413	.438
Status-Quo Extension	.882	.115	.003	.180	.687	.133	.039	.191	.770	.144	.681	.174
Intensified Extension	.917	.062	.021	.185	.618	.197	.055	.251	.693	.406	.557	.037
Short-Term Curfew	.544	.260	.197	.017	.301	.682	.191	.248	.562	.491	.447	.063
Adaptive Triggering	.419	.388	.194	.343	.402	.255	.529	.266	.205	.221	.424	.355

Note. N=14,043.

TABLE A3
Class-specific response probabilities for compliance [Colour table can be viewed at wileyonlinelibrary.com].

Scenario	Class 1 (32.0%)			Class 2 (28.9%)			Class 3 (23.6%)			Class 4 (15.5%)		
	-	0	+	-	0	+	-	0	+	-	0	+
Status Quo	.000	.066	.934	.047	.041	.912	.064	.148	.787	.031	.072	.897
Status-Quo Extension	.036	.536	.429	.016	.003	.982	.730	.257	.014	.214	.371	.414
Intensified Extension	.034	.588	.378	.014	.012	.974	.824	.139	.037	.220	.437	.343
Short-Term Curfew	.013	.207	.779	.019	.041	.940	.377	.212	.411	.193	.213	.594
Adaptive Triggering	.009	.271	.720	.041	.076	.883	.300	.338	.362	.146	.232	.622

Note. N=13,566.

APPENDIX B

Scenario 1: Extension of the contact limitations until April 20, 2020

The current contact limitations, in force since March 22, 2020, will be extended by three weeks, until April 20, 2020. After that, contact limitations will be slowly relaxed again.

The hope in this case is that the economy and public life will quickly return to a state of normality. The danger in this case, however, is that the spread of the corona virus could not be slowed down sufficiently and that the healthcare system could eventually become overloaded.

With each of the following five statements, please click on the answer that reflects your spontaneous and honest opinion about this strategy.

11	I think this strategy is ...	... not at all right 0	1	2	3	4	... absolutely right 5
12	I consider this strategy to be …	... not at all risky 0	1	2	3	4	... very risky 5
13	I myself will … comply with the restrictions linked to this strategy.	... rather not … 0	1	2	3	4	... certainly … 5
14	My friends will … comply with the restrictions linked to this strategy.	... rather not … 0	1	2	3	4	... certainly … 5
15	I believe that the acceptance of this strategy in the German population is ...	... very low 0	1	2	3	4	... very high 5

Scenario 2: Extension of the contact limitations until January 31, 2021

The current contact limitations, in force since March 22, 2020, will be extended—without intensifying them—by several months, until January 31, 2021. After that, contact limitations will be slowly relaxed again.

The hope in this case is to keep the overload of the healthcare system caused by Covid-19 patients as low as possible—even though such overload would be very likely to occur. The danger in this case is that this strategy could strain the German economy, the education system and many other aspects of individual and public life.

With each of the following five statements, please click on the answer that reflects your spontaneous and honest opinion about this strategy.

21	I think this strategy is ...	... not at all right 0	1	2	3	4	... absolutely right 5
22	I consider this strategy to be …	... not at all risky 0	1	2	3	4	... very risky 5
23	I myself will … comply with the restrictions linked to this strategy.	... rather not … 0	1	2	3	4	... certainly … 5
24	My friends will … comply with the restrictions linked to this strategy.	... rather not … 0	1	2	3	4	... certainly … 5
25	I believe that the acceptance of this strategy in the German population is ...	... very low 0	1	2	3	4	... very high 5

Scenario 3: Intensifying and extension of the contact limitations

The contact limitations, in force since March 22, 2020, are being intensified: people are now only allowed to leave their own homes for good reason (e.g., to go shopping in the nearest grocery store); social contacts must be minimized even further. These intensified regulations will remain in force until a vaccine against the corona virus has been developed, but at least until the end of January 2021.

The hope in this case is to reduce the infection and disease rate to such an extent that with the current healthcare provision there are always enough hospital beds available for all Covid-19 patients. The danger in this case is that this strategy could put a heavy strain on the German economy, the education system and many other aspects of individual and public life in the long term.

With each of the following five statements, please click on the answer that reflects your spontaneous and honest opinion about this strategy.

31	I think this strategy is ...	... not at all right 0	1	2	3	4	... absolutely right 5
32	I consider this strategy to be …	... not at all risky 0	1	2	3	4	... very risky 5
33	I myself will … comply with the restrictions linked to this strategy.	... rather not … 0	1	2	3	4	... certainly … 5
34	My friends will … comply with the restrictions linked to this strategy.	... rather not … 0	1	2	3	4	... certainly … 5
35	I believe that the acceptance of this strategy in the German population is ...	... very low 0	1	2	3	4	... very high 5

Scenario 4: Short-term, but almost complete curfew

The contact limitations, in force since March 22, 2020, turn into (almost) complete curfews: citizens may only leave their homes with official permission. Violations will be severely punished. Food and health care will be ensured. This drastic strategy will remain in force until April 20, 2020, after which it will be relaxed again.

The hope in this case is to reduce the rate of infection and disease to a minimum as quickly as possible and that the effects on the economy and public life are limited in time. The danger is that infection rates could rise again after the rules have been relaxed.

With each of the following five statements, please click on the answer that reflects your spontaneous and honest opinion about this strategy.

		... not at all right					... absolutely right
41	I think this strategy is ...	0	1	2	3	4	5
		... not at all risky					... very risky
42	I consider this strategy to be …	0	1	2	3	4	5
		... rather not …					... certainly …
43	I myself will … comply with the restrictions linked to this strategy.	0	1	2	3	4	5
		... rather not …					... certainly …
44	My friends will … comply with the restrictions linked to this strategy.	0	1	2	3	4	5
		... very low					... very high
45	I believe that the acceptance of this strategy in the German population is ...	0	1	2	3	4	5

Scenario 5: Fluctuation between isolation and relaxation

Instead of imposing contact limitations or curfews immediately over a longer period of time, these are alternately intensified or relaxed: As soon as infection rates start to rise and the intensive care beds or ventilators in hospitals become scarce, a curfew (isolation) is imposed. When the number of new infections decreases, the regulations are relaxed. This 'switching on and off' of isolation regulations would continue for a longer period (probably until the end of 2021).

The hope in this case is to reduce or avoid overloading the healthcare system at any given time without putting too much strain on the economy and public life. The danger in this case is that infection rates will increase more strongly than they (repeatedly) decrease; in addition, in many areas of public life (e.g., schools), switching on and off is difficult to control centrally.

With each of the following five statements, please click on the answer that reflects your spontaneous and honest opinion about this strategy.

51	I think this strategy is ...	... not at all right 0	1	2	3	4	... absolutely right 5
52	I consider this strategy to be …	... not at all risky 0	1	2	3	4	... very risky 5
53	I myself will … comply with the restrictions linked to this strategy.	... rather not … 0	1	2	3	4	... certainly … 5
54	My friends will … comply with the restrictions linked to this strategy.	... rather not … 0	1	2	3	4	... certainly … 5
55	I believe that the acceptance of this strategy in the German population is ...	... very low 0	1	2	3	4	... very high 5