Worldviews, trust, and risk perceptions shape public acceptance of COVID-19 public health measures

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Because of the outbreak of COVID-19, most countries have implemented measures aimed at reducing the number of infected people. However, these measures only work if they are generally accepted by the public. We conducted a two-wave longitudinal survey in Switzerland (n = 1,223) to study the factors that would influence perceived risks and the acceptance of the measures. Our findings showed that people with individualistic worldviews, high general interpersonal trust, low social trust, a low level of perceived risks, and the conviction that risks other than health risks were neglected had less acceptance of the implemented measures compared with people who held the opposite views on the mentioned variables. The number of infected people declined between survey waves 1 and 2. This desired effect not only reduced people's perceived risks but also decreased their social trust and increased the conviction that other risks were neglected. Finally, the acceptance of the measures declined. Our data also support the idea that reduced risk perceptions and a decline in social trust are important drivers for the reduction in the acceptance of the measures in survey wave 2. Our results suggest that as soon as the measures attain success or the public is tired of the implemented restrictions, public acceptance declines, and it seems difficult to prolong the measures as may be desirable from an epidemiological standpoint. The importance of worldviews and trust for public acceptance of the measures further suggests the necessity of a political discussion about the implemented measures.

COVID-19 | risk perception | trust | worldviews

A pandemic is one of the major threats to human society (1). The world has experienced how disruptive a pandemic can be, with the widespread prevalence of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) that can cause COVID-19. In late 2019, people in the Chinese city of Wuhan were infected by this virus, and because its spread could not be brought under control, a pandemic emerged. This pandemic has not only killed numerous people, but in many countries, the measures implemented to reduce the spread of the virus have resulted in large economic losses and severe restrictions on freedom (2, 3). To some extent, people suffering from COVID-19 can be medically treated, but in most countries, the medical systems are not designed to cope with the large number of additional (mostly older) persons who may become ill (4). Therefore, human behavioral changes are needed to reduce the number of infected people and, consequently, the number of ill people who need medical treatments. The COVID-19 crisis provides an opportunity to examine the factors that influence people's acceptance of measures aimed at reducing the number of infected people, and due to the dynamics of this pandemic, longitudinal studies are feasible. In this study conducted in the German-speaking part of Switzerland, we examined the impacts of trust, worldviews, and risk perceptions on the acceptance of the measures implemented to reduce the number of infected people. The use of a two-wave, longitudinal survey design allowed us to examine whether changes in the postulated predictors would result in changes in the acceptance of the measures. The insights presented in this paper go beyond the specific case of COVID-19 because in a democratic society, measures to control a pandemic can only be implemented when accepted by the public. It is therefore important to gain a better understanding of the factors that influence public acceptance of the measures aimed at reducing the number of people infected during a pandemic.

Trust may be an important factor for public acceptance of measures that aim to reduce the number of people infected with COVID-19 (5–9). A recent survey conducted in 10 countries found a small correlation between trust and perceived risks associated with COVID-19 (10). Trust in science was used as a measure, and this unspecific way of measuring trust might have been one reason for the small effect. It has been suggested that different types of trust should be distinguished (11), and various types of trust may have different effects on how people perceive risks and accept measures in a pandemic. In some situations, trust may decrease perceived risks and, consequently, even lower the acceptance of or compliance with risk-management measures (12).

General interpersonal trust is the conviction that most people are generally trustworthy (13, 14). During this pandemic, all people could be carriers of SARS-CoV-2 and are therefore potential threats to a person's health. In our view, it seems plausible that people who have a high level of general interpersonal trust are more reluctant to perceive everyone else as a potential health threat and that they show less risk reduction behavior compared with people who have low levels of general interpersonal trust. The results of recent studies are in line with such reasoning (15, 16). Social trust also seems important in the case of COVID-19. Social trust implies that the government provides unbiased information and that risks are not exaggerated. In contrast, beliefs in conspiracies involving pharmaceutical companies would be indications of a lack of social trust. Different measures of social trust were positively correlated with perceived risks and the acceptance of the implemented measures in the case of COVID-19 (16, 17).

Cultural worldviews that consist of general beliefs and value orientations have been suggested as factors that strongly influence

Significance

The successful implementation of measures aimed at reducing the number of people infected with COVID-19 crucially depends on public acceptance of these measures. We show that it is not gender or age but psychological variables, such as trust and worldviews, that strongly influence people's risk perceptions and acceptance of the measures. We are able to show these effects in both cross-sectional and longitudinal study designs. Since the acceptance of implemented measures crucially depends on whether they are in line with people's values and worldviews, the latter two variables are as relevant as epidemiological facts for successful risk management.

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people's risk perceptions (18). This paradigm maintains that people are either group or individual oriented, and they either prefer adhering to many rules to control human behavior or believe that only few rules are necessary (19). Utilizing worldview measures in the tradition of Douglas and Wildavsky (18), studies found that cultural theory measures (i.e., the four scales fatalism, hierarchy, individualism, and egalitarianism are used) (20) as well as cultural cognition theory measures (i.e., the two scales individualism–communitarianism and hierarchy–egalitarianism are used) (20–22) were related to people's risk perceptions. Regarding perceived risks associated with COVID-19, one study examined the impact of individualistic worldviews, measured with a single item, in 10 countries (10). Except for one country, people who had more individualistic worldviews perceived less risks associated with COVID-19 compared with people who held less individualistic worldviews. In the present research, we used cultural cognition measures (21) and expected individualistic (but not hierarchical) worldviews to be associated with perceived risks of COVID-19 and the acceptance of measures aiming to reduce the number of infected people. We used cultural cognition measures and predicted such associations because the COVID-19 measures implemented in Switzerland are more related to restrictions on individual freedom than to unequal treatment of persons.

People's risk perception can be an important driver influencing their behavior in risk situations (23). Perceived health concerns triggered by COVID-19 results in behavior that reduces the risk of being infected (24, 25). Perceived risk is strongly related to people's affect and feelings (26). Therefore, we used people's fears related to COVID-19 as a measure for risk perception.

For this study, we collected data in Switzerland, where the first wave of the pandemic peaked in mid-March 2020. In response, the Federal Council enforced several measures on March 16, 2020 (e.g., closure of restaurants, shops—except grocery stores and drugstores—and universities and schools; substantially reduced public transportation; and strong encouragement to work from home, stay home, and keep physical distance from other people whenever possible). The data for our study were collected in survey wave 1 between March 27 and April 5, 2020 (for these 10 d, mean number [M] of persons testing positive: M = 850; persons hospitalized due to COVID-19: M = 112) (27) as well as in survey wave 2, with the same participants, between April 17 and April 26, 2020 (persons testing positive: M = 169; persons hospitalized due to COVID-19: M = 18). During both survey waves, all the mentioned measures aimed at reducing the number of infected people were in place. The first COVID-19 wave that hit Switzerland peaked during the first data collection. In this study, we aimed to examine the influence of people's trust and worldviews on their risk perceptions regarding COVID-19 and their acceptance of the implemented measures. The longitudinal design with two survey waves allowed us to test whether changes in social trust, perceived importance of risks other than COVID-19 risks, and perceived risks would explain the changes in the acceptance of the measures between the two survey waves.

Results

As shown in Fig. 1, we observe substantial differences in perceived risks, social trust, and acceptance of the measures between the two waves that were ∼3 wk apart. During both measurement points, the same measures were in place, but the number of people testing positive decreased between the two measurement points. The data shown in Fig. 1 suggest that people's perceptions regarding COVID-19 significantly changed between the two waves. The participants perceived fewer risks in survey wave 2 compared with survey wave 1 [$t_{(1,222)} = 18.62$, $P < 0.001$]. Social trust also significantly decreased [$t_{(1,222)} = 8.90$, $P < 0.001$], and the conviction that the costs of COVID-19 measures were too high increased between the two waves [$t_{(1,222)} = -6.66$, $P < 0.001$].

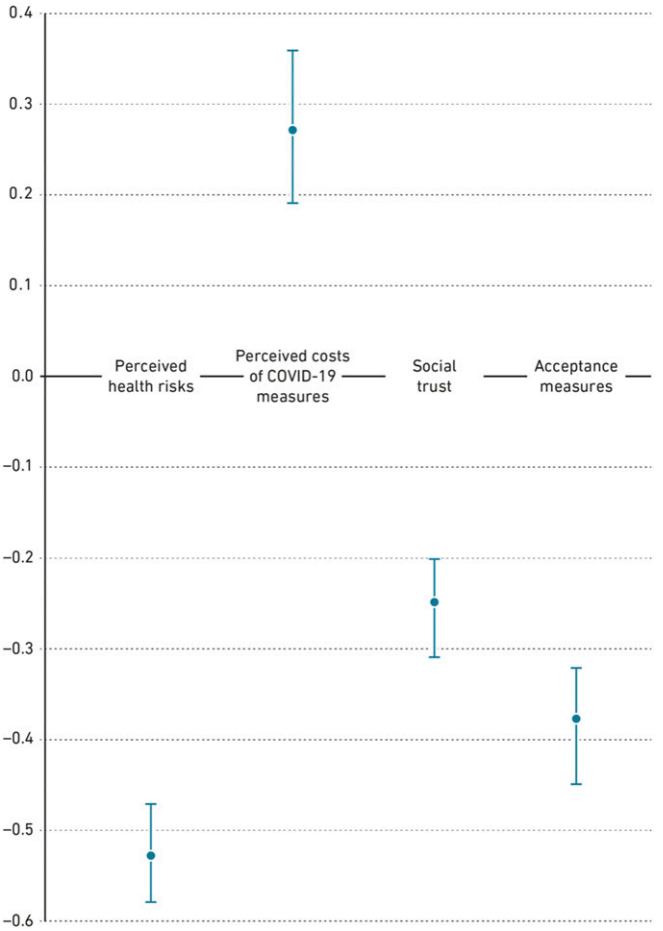

Fig. 1. Change scores for perceived health risks, perceived costs of COVID-19 measures, social trust, and acceptance of measures between survey wave 1 and wave 2 (means and 95% CIs are shown).

Considering these changes in perceptions, it is not surprising that the implemented measures to reduce the number of infected people were less accepted in survey wave 2 compared with survey wave 1 [$t_{(1,222)} = 11.59$, $P < 0.001$].

We used linear regression analyses to examine the predictors of perceived health risks associated with SARS-CoV-2. The model for perceived health risks was significant [$F(7,1,215) = 45.24$, $P < 0.001$] and explained 21% of the variance. The results are shown in Table 1. Individualism (as a cultural worldview) and general interpersonal trust were the most important predictors of people's risk perceptions. The participants with more individualistic worldviews perceived fewer risks compared with those who had more communitarian worldviews. Furthermore, the participants who scored high in general interpersonal trust perceived fewer risks compared with those who scored low in this construct. Finally, the participants' objective risk influenced their risk perception. The participants who belonged to a risk group perceived more risks compared with those who did not belong to a risk group.

Similar to other countries, Switzerland implemented various measures to reduce the infection rate. During the periods of survey waves 1 and 2, schools were closed, group gatherings of more than five people were not allowed, and only food shops and pharmacies were open. Furthermore, the government asked people to stay home and not leave the house unless necessary. However, no complete lockdown with curfews was imposed in Switzerland. Using a linear regression analysis, we examined which predictors

Table 1. Results of a linear regression analysis with perceived health risks in survey wave 2 as the dependent variable

	Unstandardized B	SE	Beta	*t*
Constant	6.27	0.29		22.03*
Sex[†]	0.08	0.08	0.03	1.01
Age	−0.01	0.003	−0.06	−2.36
Risk group[‡]	0.31	0.09	0.10	3.53*
Individualism (T2)	−0.43	0.03	−0.38	−12.82*
Hierarchy (T2)	−0.03	0.03	−0.02	−0.84
Social trust (T2)	0.04	0.03	0.04	1.29
General interpersonal trust (T2)	−0.23	0.03	−0.19	−6.72*

$R^2 = 0.21$, and T2 = variable wave 2. *$P < 0.001$.
[†]Sex: male coded as 0; female coded as 1.
[‡]Belonging to objective risk group: no coded as 0; yes coded as 1.

explained the acceptance of the measures implemented in Switzerland. For all variables, we used the data collected in survey wave 2. The model was significant [$F(9,1,213) = 143.23$, $P < 0.001$] and explained 52% of the variance. The results are shown in Table 2. The participants with individualistic worldviews, a low level of perceived risks, perceived high costs of COVID-19 measures, and a high level of general interpersonal trust but a low level of social trust showed lower levels of acceptance of the implemented measures compared with the participants who had communitarian worldviews, a high level of perceived risks, perceived low costs of COVID-19 measures, and a low level of general interpersonal trust but a high level of social trust.

We used a linear regression analysis to examine the factors that influenced people's acceptance of the measures in survey wave 2. In the first regression model, the following predictors were entered: acceptance of measures in survey wave 1, sex, age, and belonging to the objective risk group. The model was significant [$F(4,1,218) = 328.74$, $P < 0.001$]. In the next step, the following variables were included: individualism and hierarchy worldviews, general interpersonal trust, social trust, perceived health risks, and perceived costs of COVID-19 measures. This resulted in an improved model fit [$F_{change}(6,1,212) = 39.42$, $P < 0.001$]. In the next step, we also included the change scores (i.e., variable survey wave 2 − variable survey wave 1) for social trust, perceived health risks, and perceived costs of COVID-19 measures, further improving the model fit [$F_{change}(3,1,209) = 44.65$, $P < 0.001$]. This final model [$F(13,1,209) = 163.76$, $P < 0.001$] explained 64% of the variance. Similar to the results of the other regression models, the diagnostic values looked fine, and multicollinearity was not a problem (VIF (variance inflation factor) < 2.6). The estimated coefficients for the predictors are shown in Table 3. As expected, the participants' acceptance of the measures in survey wave 1 was an important predictor of their acceptance of the measures in survey wave 2. This result suggests relatively high stability in people's acceptance of the measures, even when the number of infected people declines. Furthermore, the individualistic worldview and general interpersonal trust had a significantly negative association with people's acceptance of the measures in survey wave 2, whereas perceived health risk had a significantly positive association with such acceptance. Most interestingly, the change scores for social trust, perceived health risks, and costs of COVID-19 measures were significant. In other words, the participants with an increased level of social trust and increased risk perceptions in survey wave 2 compared with survey wave 1 showed more acceptance of the implemented measures than the participants who indicated a decrease in these two variables. The participants with an increased perception that costs of COVID-19 measures were high showed a lower acceptance of the implemented measures in survey wave 2 compared with the participants who perceived these costs as low.

Discussion

Countries all over the world have probably implemented measures aimed at reducing the number of people infected with COVID-19. However, there are large differences in the types of measures implemented in various countries. Public acceptance of the measures influences which ones can be implemented and which ones gain people's compliance. However, people tend to considerably differ in their perceptions of COVID-19 and what measures they find acceptable (10). In the present research, we have demonstrated the importance of perceived risks, trust, and worldviews for explaining individual differences in the acceptance of the measures. These factors seem to be more important compared to sex, which was found to be weakly associated with perceived risk in a past survey (28) but is not associated with perceived health risks or acceptance of the measures in the present study when controlling for psychological predictors.

The scientific knowledge about COVID-19 has been associated with large degrees of uncertainties. From an epidemiological standpoint, reducing the number of contacts among people as much as possible would be desirable, but from an economic perspective, such extreme measures may be too costly. The measures implemented in many countries are thus partially based on scientific evidence, but worldviews play an important role too. Tradeoffs have to be made between the population's health and economic sustainability. Our survey results demonstrate

Table 2. Results of a linear regression analysis with acceptance of measures in survey wave 2 as the dependent variable

	Unstandardized B	SE	Beta	*t*
Constant	6.95	0.33		21.13**
Sex[†]	−0.06	0.07	−0.02	−0.92
Age	−0.001	0.003	−0.01	−0.25
Risk group[‡]	−0.03	0.08	−0.01	−0.34
Individualism (T2)	−0.47	0.03	−0.37	−14.48**
Hierarchy (T2)	−0.06	0.03	−0.04	−2.03
Social trust (T2)	0.10	0.03	0.10	3.46*
General interpersonal trust (T2)	−0.10	0.03	−0.08	−3.39*
Perceived health risks (T2)	0.27	0.03	0.24	10.77**
Perceived costs of COVID-19 measures (T2)	−0.23	0.03	−0.24	−8.65**

$R^2 = 0.52$, and T2 = variable wave 2. *$P < 0.01$, **$P < 0.001$.
[†]Sex: male coded as 0; female coded as 1.
[‡]Belonging to objective risk group: no coded as 0; yes coded as 1.

Table 3. Results of a longitudinal linear regression analysis with acceptance of measures in survey wave 2 as the dependent variable

	Unstandardized B	SE	Beta	*t*
Constant	3.54	0.35		10.15**
Sex[†]	−0.11	0.06	−0.03	−1.93
Age	−0.001	0.002	−0.01	−0.62
Risk group[‡]	0.04	0.07	0.01	0.53
Acceptance of measures (T1)	0.56	0.03	0.48	20.00**
Individualism (T2)	−0.28	0.03	−0.22	−9.57**
Hierarchy (T2)	−0.04	0.03	−0.03	−1.61
General interpersonal trust (T2)	−0.08	0.03	−0.06	−3.25*
Social trust (T1)	0.06	0.03	0.06	2.28
Perceived health risks (T1)	0.10	0.03	0.09	3.91**
Perceived costs of COVID-19 measures (T1)	−0.11	0.03	−0.11	−4.06**
Social trust, change score (T2 – T1)	0.10	0.04	0.06	2.97*
Perceived health risks, change score (T2 – T1)	0.23	0.03	0.14	7.54**
Perceived costs of COVID-19 measures, change score (T2 – T1)	−0.16	0.03	−0.14	−6.00**

$R^2 = 0.64$, T1 = variable wave 1, and T2 = variable wave 2. *$P < 0.01$, **$P < 0.001$.
[†]Sex: male coded as 0; female coded as 1.
[‡]Belonging to objective risk group: no coded as 0; yes coded as 1.

the importance of worldviews and trust for the acceptance of the implemented measures aimed at reducing the risks of infection with the virus. People who have individualistic worldviews—and thus primarily value individual responsibility—show lower levels of acceptance compared to people who hold communitarian values and strong beliefs that the government knows better what is good for its citizens. The hierarchy subscale has rather low reliability. However, we do not believe that this is the reason no significant effect is observed for this subscale because we expected that only the individualism subscale would have an effect on how COVID-19 and the measures would be perceived.

The importance of trust for risk management has been shown in a large number of studies (29). As expected, social trust is important for public acceptance of the measures. We find an opposite effect for general interpersonal trust, however. General interpersonal trust is an important enabler for interactions among people who do not know one another; therefore, a high level of general interpersonal trust is important for economic development because it facilitates cooperative behavior among people (30). This very same feature makes it desirable to have high levels of general interpersonal trust in a country, yet it acts as a barrier to the acceptance of the measures implemented in the case of COVID-19. For people with a high level of general interpersonal trust, the idea that all people should primarily be perceived as posing health risks seems difficult to accept.

People who perceive more health risks associated with COVID-19 show more acceptance of the measures in place compared with people who perceive fewer risks. Perceived risks are significantly lower in survey wave 2 compared with survey wave 1. This indicates that people's risk perceptions are influenced, at least to some degree, by the objective risk that people face because in Switzerland, the number of infected people is lower during survey wave 2 compared with survey wave 1. Of course, we cannot rule out that over time, increased familiarity with COVID-19 may have resulted in lower risk perceptions and, consequently, in less acceptance of the measures. However, our data clearly show the importance of perceived risks for the acceptance of COVID-19 measures.

One strength of our analyses comes from the longitudinal study design. Our analyses strongly support the notion that changes in perceived health risks, in social trust, and in the perception of other risks influence changes in the acceptance of the measures. This is by no means a proof of causality, but it undoubtedly provides stronger support for a causal mechanism when compared with cross-sectional data analyses.

The fact that the data were collected only in Switzerland is a limitation. The stage of the pandemic, the measures implemented by the government, whether people adhere to these measures, the social context, and the economic situation of a country may influence not only the general level of acceptance of the measures but also the importance of the various factors explaining people's acceptance. Additional studies should test whether the variables that are found important in the present study also explain the acceptance of the measures that aim to reduce the number of infected people in other countries. Furthermore, it might be worth examining whether perceived controllability (31) of being infected may influence perceived risks as well as the acceptance of the measures. We would also expect that during the course of the pandemic, people would become more familiar with COVID-19, which might result in reduced risk perceptions (31).

Certainly, epidemiological evidence should be taken into account when planning risk management strategies related to COVID-19. Particularly during the early stages of a pandemic, when public risk perception is high, a fast response is necessary. However, sustained public acceptance becomes increasingly important in the case of an ongoing pandemic, and risk-management strategies must not be only influenced by epidemiologists because they are not in a position to decide which tradeoffs should be made by society. The present study's results demonstrate the importance of worldviews and beliefs for the acceptance of measures. A societal discussion about risk-management measures is needed because their implementation is a question of not only scientific evidence but also people's worldviews. Furthermore, the implemented measures should be communicated in a way that links them to different worldviews as much as possible (32). Controlling a pandemic is an issue involving not only science but also societal values.

Materials and Methods

We used a longitudinal design in which the same participants responded twice. Survey wave 1 took place between March 27 and April 5, 2020 (15); survey wave 2 was conducted between April 17 and April 26, 2020. The data were collected in the German-speaking part of Switzerland, with the support of a professional provider of consumer panels (respondi). The participants were incentivized for responding to the survey. Quota sampling was applied to ensure appropriate age and sex balance in the sample, with five equally distributed age groups (between 20 and 70 y) and equal sex distribution. The ethical committee of ETH Zurich approved the study (EK_2020-N-45). All participants provided informed consent prior to the data collection.

A total of 1,654 participants completed survey wave 1. The participants who finished this survey in less than half the median completion time ($n = 69$; median = 15.6 min) were excluded from the analyses because they likely did not fill out the questionnaire conscientiously. A total of 1,267 participants

completed survey wave 2. The participants who finished this survey in less than half the median completion time ($n = 43$; median = 15.4 min) were excluded from the analyses. For the final sample, only the participants who filled out the questionnaire in both waves were included. Thus, the final sample comprised 1,223 participants (51% females) between 20 and 70 y old. Of the participants, 34 ($n = 418$), 55 ($n = 668$), and 11% ($n = 137$) belonged to the 20 to 39, 40 to 64, and 65 to 70 age groups, respectively. According to the most recent Swiss census data, inhabitants aged 20 y or older are distributed as follows: 33% in the 20 to 39 age group, 44% in the 40 to 64 age group, and 23% in the 65 and older age group (33). Older people were underrepresented in our sample, which was restricted to people aged 70 y and under. The reason is that respondi only allows people in the 20 to 70 age range to participate in its consumer panels. Regarding the level of education, 4% ($n = 49$) of the participants had attained the lowest level (i.e., obligatory schools), 60% ($n = 732$) had reached the middle level (i.e., apprenticeship, college, or higher vocational training), and 36% ($n = 442$) had attained the highest level. These data are similar to the Swiss census data, with 11, 59, and 30% having attained the lowest, middle, and highest levels of education, respectively (34).

At the start of the questionnaire in survey wave 1, the participants were asked whether they had heard of the coronavirus prior to that survey. All participants were then introduced to the topic with this brief background information adapted from the German COVID-19 Snapshot Monitoring: "Worldwide, there is an outbreak of respiratory diseases caused by the new coronavirus. This virus was first discovered in Wuhan, Hubei Province in China, and has since spread worldwide. There are thousands of confirmed cases and many deaths associated with the new coronavirus, also in Switzerland." After this introduction, the participants filled out the questionnaire, which covered different topics related to COVID-19, using various scales. In the following subsections, we focus on the items relevant to this study. The questions in the two waves were identical, except for the cultural worldview questions, which were only included in survey wave 2.

The participants were asked various questions regarding their sociodemographic information, such as age, sex, income, education, and canton of residence.

Various illnesses and treatments have been found to increase vulnerability to COVID-19 (i.e., high blood pressure, diabetes, cardiovascular diseases, chronic respiratory diseases, illnesses/therapies that weaken the immune system, and cancer). The participants were asked to indicate whether they had any preexisting health conditions. For this item, they were provided with a list of health conditions (e.g., high blood pressure, type 2 diabetes, and cancer) that were associated with severe progressions of COVID-19 and were asked to check each health condition that applied to them (35). We calculated the objective risk group variable with the value of 1 ($n = 328$, 27%) if a person had one of these illnesses or was pregnant; otherwise, we calculated it with the value of 0 ($n = 895$, 73%).

We asked the participants whether they had been infected with the coronavirus. Only 2 (0.2%) respondents had a medical confirmation of an infection, and 48 respondents (3.9%) indicated that they had experienced the typical symptoms but had no medical confirmation of an infection.

Five items were used for measuring the participants' health risk perceptions. The participants could indicate the level of their perceived risk on a scale ranging from 1 (no fear) to 7 (very high fear). Only the two extreme points of the scale were also anchored descriptively; the other response categories were only anchored numerically. The health risk perception scale consisted of the following items: "Related to the new coronavirus, I am afraid that I will be infected," "...that someone from my family or my acquaintances will be infected," "...that there will be fatalities in my social environment," "...that there will be many fatalities in Switzerland," and "...that the healthcare system will be overloaded." In survey waves 1 and 2, Cronbach's α values were 0.87 and 0.88, respectively.

The basis of social trust is perceived value similarity (36). We tend to trust organizations that have the same values that are salient to us in a specific situation (37). In the case of COVID-19, the beliefs that the government honestly reports the risks of COVID-19 and that the government and pharmaceutical companies act in the public interest are relevant proxies for people's social trust. The following four items were used to measure the participants' social trust or lack of social trust in the Swiss government and in the pharmaceutical industry, as they relate to COVID-19: 1) "The government intentionally exaggerates the hazards associated with the coronavirus"; 2) "The coronavirus has been intentionally brought to people"; 3) "The pharmaceutical industry delays the development of drugs in order to make large profits afterwards"; and 4) "We are not openly informed about the pandemic by the authorities; the numbers are fake." The participants could indicate their agreement with the statements, using a scale ranging from 1 (do not agree at all) to 7 (completely agree). Only the two extreme points of the scale were also anchored descriptively; the other response categories were only anchored numerically. Because all four items were negatively formulated, they were recoded and the mean was calculated. In survey waves 1 and 2, Cronbach's α values were 0.81 and 0.83, respectively.

The measures that are aimed to reduce the health risks caused by SARS-CoV-2 have some undesirable side effects. The following three items measured the participants' perceived costs of the COVID-19 measures: 1) "The risks of the coronavirus are not sufficiently weighed against economic risks (e.g., economic damage caused by the measures against the virus)"; 2) "The risks of the coronavirus are not sufficiently weighed against education-related risks (e.g., pupils who academically lag behind due to the closing of schools)"; and 3) "The risks of the coronavirus are not sufficiently weighed against social risks (e.g., an increase of social conflicts at home due to restrictions on going outside)." The participants could indicate their agreement with the statements using a scale ranging from 1 (do not agree at all) to 7 (completely agree). Only the two extreme points of the scale were also anchored descriptively; the other response categories were only anchored numerically. In survey waves 1 and 2, Cronbach's α values were 0.88 and 0.90, respectively.

When the data were collected, various measures that were aimed to reduce the spread of the virus were already in place. The participants could indicate their level of agreement with the following statements about the measures taken in Switzerland, using a scale ranging from 1 (do not agree at all) to 7 (completely agree): 1) "In my view, it is justified that, in Switzerland, the schools have been closed"; 2) "...the restaurants and the bars have been closed"; 3) "...one is discouraged from leaving the house"; and 4) "...all shops, with the exception of grocery shops and pharmacies, have been closed." Only the two extreme points of the scale were also anchored descriptively; the other response categories were only anchored numerically. In survey waves 1 and 2, Cronbach's α values were 0.88 and 0.90, respectively.

For the measurement of general interpersonal trust, a scale that was previously used for explaining people's risk perceptions was applied (13). This scale integrated various items from other studies (38–40). The following six items were used to measure general interpersonal trust: 1) "If given the chance, most people would try to take advantage of you"; 2) "Most people are too busy looking out for themselves to be helpful"; 3) "You can't trust strangers anymore"; 4) "When dealing with strangers, one is better off using caution before trusting them"; 5) "Most people are basically honest"; and 6) "Most people tell a lie when they can benefit from doing so." The participants could indicate their agreement with the statements, using a scale ranging from 1 (do not agree at all) to 7 (completely agree). Only the two extreme points of the scale were also anchored descriptively; the other response categories were only anchored numerically. Items 1, 2, 3, 4, and 6 were recoded, so higher values expressed higher levels of trust and lower values expressed lower levels of trust. In survey waves 1 and 2, Cronbach's α values were 0.85 and 0.86, respectively.

The participants' worldviews were measured using a scale proposed by Kahan and colleagues (21). This scale's items reflect how people perceive social orderings and interactions in general. The scale consists of two subscales: hierarchy–egalitarianism (hierarchy) and individualism–communitarianism (individualism). For the present study, we used Shi et al.'s version (22) in which some of the items were slightly adapted to better fit Swiss society. Worldviews related to individualism were measured with the following six items: 1) "The government should do more to advance society's goals, even if that means limiting the freedom and choices of individuals" (recoded); 2) "The government interferes far too much in our everyday lives"; 3) "It's not the government's business to try to protect people from themselves"; 4) "The government should stop telling people how to live their lives"; 5) "Sometimes, the government needs to make laws that keep people from hurting themselves" (recoded); and 6) "The government should put limits on the choices that individuals can make so they don't get in the way of what's good for society" (recoded). Worldviews related to hierarchy were measured with the following six items: 1) "It seems like immigrants, women, homosexuals, and other groups don't want equal rights; they want special rights just for them"; 2) "Discrimination against immigrants is still a very serious problem in our society" (recoded); 3) "Our society would be better off if the distribution of wealth was more equal" (recoded); 4) "We have gone too far in pushing equal rights in this country"; 5) "We need to dramatically reduce inequalities between the rich and the poor, Swiss and foreigners, and men and women" (recoded); and 6) "Society as a whole has become too soft and feminine." The participants could indicate their agreement with the statements, using a scale ranging from 1 (do not agree at all) to 7 (completely agree). The worldview items were included only in survey wave 2. For the individualism subscale, Cronbach's α was 0.79, and for the hierarchy subscale, Cronbach's α was 0.68.

Data Availability. Anonymized data have been deposited in OSF (Open Science Framework), https://osf.io/ar6zf (41).

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