■ ■ ■ Дети во время пандемии: о доверии родителей слухам и недостоверной информации в социальных сетях

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Аннотация. Кризисные ситуации, такие как пандемия коронавирусной инфекции, влияют на поведение человека. Ответная реакция на них для большинства людей – это страх и соответствующее поведение, вызванное страхом. На современном этапе социальные сети насчитывают огромное число пользователей по всему миру, а пользователи – частные лица, государственные организации и предприятия бизнеса свободно пересылают, размещают и комментируют сообщения в социальных сетях. Это позволяет охватить большую аудиторию за очень короткое время. Однако не все сообщения в социальных сетях можно классифицировать как достоверные. С одной стороны, многие люди, группы и организации используют социальные сети в качестве инструмента распространения слухов и фальшивых новостей, а с другой стороны, многие люди верят слухам и фейкам, распространяемым в социальных сетях, и не в состоянии отличить достоверные новости о собственно фейков. В связи с этим в настоящей статье с помощью метода количественного сбора данных исследуется, действительно ли родители в Федеративной Республике Германия чаще верят в слухи и фальшивые новости в социальных сетях, чем бездетные. Результаты показывают, что люди, имеющие одного или нескольких детей в возрасте до двенадцати лет, чаще верят распространяемым фейкам, как, например, то, что прививка COVID-19 изменяет генетический материал, чем те, у кого детей нет.

Ключевые слова: пандемия COVID-19, дети, социальные сети, кризис, слухи, фальшивые новости, поведение людей

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◼ ◼ ◼ Children in Times of a Pandemic – Do Parents More Frequently Believe in Rumors and Fake News on Social Media?

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Abstract. Crises such as the COVID-19 pandemic affect people's behavior, since most people react with fear and fear-related behavior. In these days, social media is used by many people all over the world and thus, people as well as public and private organizations and groups actively share, post and comment messages on social media. In this way, many people can be reached in a very short time. However, not all posts on social media can be defined as a credible news. On one hand, many people, groups and organizations make use of social media to spread rumors and fakes and on the other hand, many people believe in rumors and fakes spread on social media. For many people, differentiating between news and fakes is not easy. In this context, the present article uses the quantitative data collection method to investigate whether parents in the Federal Republic of Germany do more frequently believe in rumors and fake news on social media than childless people do. The results show that people with one or more children under the age of twelve do more frequently believe in fakes, i.e. that COVID-19 vaccination changes the genetic material, than childless people do.

Keywords: COVID-19 pandemic, children, social media, crisis, rumors, fake news, human behavior

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Children's Situation During the Pandemic

Countries, states and communities differently approach to the implementation of pandemics mitigation measures. For instance, some authors [Lu et al.] comparing Germany's COVID-19 mitigation strategy with China, state that Germany followed a mitigation strategy, whereas China's goal was to eliminate the spreading of the virus. Lu et al. state that an early implementation of both strict and sustained measures can be seen as the major key to achieve a normal economic and social life. Besides, the Federal Republic of Germany used many different approaches to mitigate the spreading of the virus – these are for instance the closure of universities, schools and day care

centers, restraining orders and the prohibition of events[1]. People's agreement with the closure of universities, schools and day care centers, the closure of borders as well as the prohibition of events with more than 100 participants initially was very high – between 85% and 90% in March 2020. However, their agreement rapidly declined from March to July 2020. This is especially the case for the closure of universities, schools and day care centers. Thus, mitigation measures are not popular with everybody. Indeed, the major aim of corona mitigation measures is to save people's lives.

Nevertheless, for some people, the negative aspects of mitigation measures predominate the positive ones. In this context, D.A. Moser [Moser et al.] concentrated on years of life lost due to the psychosocial consequences of COVID-19 mitigation strategies using the so-called years of life lost (YLL) parameter and focused on influencing factors such as depression, childhood trauma, domestic violence, suicide, alcohol use disorder, social isolation and changes in marital status – all these, according to the authors, led to an average 0.205 YLL per person due to the psychological consequences of the corona mitigation measures. Other scientists [Akseer et al.] emphasize that the pandemic globally ravages both health and economic metrics: people's incomes, social protection, food systems as well as health care services are affected by the pandemic. M. Götz et al. investigated children's situation during lockdown in 42 countries and state that children had to face special challenges, e.g. some children reported they were fighting more with their siblings, since they had no chance to leave home for activities – this was especially the case for big families with more than only one child [Götz et al.]. Besides, the media rose concerns regarding the effects of lockdowns on the health of children, emphasizing that the corona mitigation measures of the German government and hereby especially the limitation of contacts by closing school, sports clubs and leisure and culture facilities for children and adolescents have resulted in severe problems[2]. Child and youth psychotherapists reported a massive run on treatment units, children complained that they felt isolated, have problems with learning, self-organizing and knowledge acquiring, which resulted from home-schooling. Additionally, therapists observed that children suffer from mood swings, show depressive symptoms, anxiety states and intense their media consumption[3].

Other studies such as the COPSY-Study of the Universitätsklinikum Hamburg-Eppendorf (UKE) report that every third child shows psychological anomalies based on the contact restrictions. U. Ravens-Sieberer et al. focused on the impact of the

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[1] Bundeszentrale für politische Bildung: Zum gesellschaftlichen Umgang mit der Corona-Pandemie. Ergebnisse der Mannheimer Corona-Studie [el. source]: https://m.bpb.de/apuz/314345/zum-gesellschaftlichen-umgang-mit-der-corona-pandemie (accessed 27.10.2022).

[2] Ärzteblatt: Wir sehen, dass die Kinder mit zunehmender Länge des Lockdowns immer mehr ‚am Rad drehen' [el. source]: https://www.aerzteblatt.de/nachrichten/120837/Wir-seh-en-dass-die-Kinder-mit-zunehmender-Laenge-des-Lockdowns-immer-mehr-am-Rad-dre-hen (accessed 27.09.2022).

[3] Ibid.

corona mitigation strategy on mental health and life quality of children and adolescents in Germany. The authors emphasize that the corona pandemic has affected the lives of 1.6 billion children and adolescents. Studies from India, China, the US, Brazil, Italy and Spain have already shown the negative impacts of mitigation measures on the mental health of children [Ravens-Sieberer et al.] investigated the corona pandemic's impact on the mental health of children and adolescents as well as the health-related quality of life (HRQoL) in Germany. The authors conducted an online survey of 1,586 families with children in the age of between 7 and 17 years to measure HRQoL, mental health problems, anxiety as well as depression. The results were then compared with the data of a survey that was conducted in Germany before the corona pandemic started. According to the results, it can be stated that two thirds of the participated children and adolescents feel extremely burdened by the corona pandemic. In this context, their HRQoL decreased from 40.2% before the pandemic to 15.3% during the pandemic. Additionally, an increase in mental health problems could be observed (9.9% – 17.8%). Children and adolescents also reported higher anxiety levels (14.9% – 24.1%) [Ravens-Sieberer et al.].

In summary, it can be stated that the implemented mitigation measures strongly affected the peoples psychological state and health. From this point of view, some people might be more prone to rumors and fake news on social media than others, depending on the extent to what they are affected by the corona mitigation measures. Considering the example above, the mental health of children and adolescents might play a bigger role for some people than the measures' effectiveness to avoid a further spreading of the virus.

Rumors and Fake News on Social Media

With the development of the internet and in this context especially social media, many social media users tend to spread information without checking their truthfulness [Alkhodaira et al.]. Rumors and fake news can easily be spread by means of social media, since the number of social media users is still increasing[1]. As stated by J. Clement [Clement], the global growth of social media is mainly driven by an increasing use of mobile devices. Facebook[*] still is the most popular social media network followed by Instagram[*]. Social networks facilitate the spread of information, no matter true or false. According to E.C. Tandoc [Tandoc et al.], misinformation is not a modern-age phenomenon, as it is known from all types of media such as newspapers, radio or TV. In fact, misinformation in media is as old as writing systems exist. Nowadays, online platforms and hereby especially social media evolved into the main source for a still

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[1] Statista: Number of social network users worldwide from 2017 to 2025 [el. source]: https://www.statista.com/statistics/278414/number-of-worldwide-social-network-users/ (accessed 27.09.2022).

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* Belongs to Meta – the organization is recognized as an extremist and banned in Russia.

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increasing number of user and thus, misinformation has found a completely new channel: social media platform allow non-journalists to reach many people, also known as citizen-journalism. Hence, non-journalists began to conduct journalistic activities with the goal to produce specific outputs such as news [Robinson & DeShano]. Tandoc et al. mention that social media not only changed the way of news distribution, but also the traditional beliefs on how news actually should look. Even a tweet of 140 characters thus is considered as news, especially if it has been spread by an authority person.

Social media users are confronted with a flood of information that is shared by many different sources. According to some authors [Kang et al.], the veracity of an information, which is shared on social media, might be easier to legitimate, if the information is received from a socially proximate source. Nevertheless, only a few social media users verify an information they share. Others [Liu et al.] state that especially in times of disasters, messages can easily be spread around the world by using social media. There are five influencing factors on rumor retransmission, which have been checked [Liu et al.]:

1) anxiety;
2) personal involvement;
3) content ambiguity;
4) sender's credibility;
5) attractiveness.

Similar results can be obtained from O. Oh [Oh et al.], who identified the three factors – (1) anxiety, (2) personal involvement and (3) source ambiguity as factors that significantly support rumor transmission on social media.

In the context of the current COVID-19 crisis, S. Tasnim [Tasnim et al.] focused on the impact of rumors and misinformation especially on COVID-19 on social media. According to the authors, the corona pandemic significantly challenged the health systems of all countries, but furthermore, it also fueled the appearance of misinformation, hoaxes and rumors regarding the outcomes, the etiology, the prevention and the cure of COVID-19. Misinformation spread on social media masks healthy behavior and promotes erroneous practices, which again increases the ongoing spread of the virus and thus, results in poor mental and physical health outcomes among humans. Hence, it becomes clear that not only the public but also health care providers should be provided with accurate information.

Behavioral Modification through Rumors and Fake News

According to S. Zannettou et al. [Zannettou et al.], in the present era various actors use social media platforms to spread false information with the aim to manipulate the public's opinion on specific topics. The consequences for the public can be dire, since it is not only people's opinions, which can be changed. It might also be people's actions, which is of high importance in the context of critical events. The authors especially focus on political false information, since it might result in dire consequences regarding the community and compared to other types of false information, political false information propagates further and faster.

In the context of a possible change of behavior due to the exposure to rumors and fake news on social media, Z. Bastick conducted a lab-based randomized controlled experiment with 233 students [Bastick]. The major aim was to investigate the effect of fake news on their behavior. The results show that even a very short exposure to fake news (less than five minutes) could significantly modify the participants' unconscious behavior, and that people estimate their change of behavior smaller than it actually is. Hence, they believe they cannot be influenced easily by fake news on social media, but in fact, the opposite is the case. As a result, the author of the research [Bastick] states that current approaches to mitigate disinformation and fake news are insufficient and cannot protect social media users.

In another study, C.M. Greene and G. Murphy [Greene & Murphy] focused on quantifying the effects of fake news on human behavior. The authors also concentrated on crises situations and used the current corona pandemic as a case study. According to the authors, fake news on social media are generally associated with grave consequences for health behavior – however, there is no empirical data that supports this assumption. To overcome this lack of research, Greene and Murphy used the wave of misinformation on social media during the current corona crisis and investigated behavioral intentions as an effect of people's exposure to fake news. The results show small but measurable effects – for instance, people who were confronted with stories about a planned contact-tracking app reposted a 5% reduction in their willingness to download this app. Thus, the exposure to fake news has little behavioral consequences. Also, the authors state that warnings about fake news on social media by social media companies and governments are unlikely to be effective. The authors conclude that more empirical research is required to investigate the consequences of fake news on social media.

F. Menczer and T. Hills [Menczer & Hills] state that an information overload in times of the current corona pandemic supports the spread of fake news on social media. Many people rely on a friend's or a colleague's post and simply share it without having read it. The examples show that people prefer information from people they trust. E.g., in a case study from Thailand, A. Kamplean [Kamplean] investigated people's reaction with different fake news, focusing on their spreading and encountering behavior. The results show that emotions play an important role regarding the spreading of digital content. Posts with a content that somehow generates strong emotions are more likely to be shared. In this context, posts that generate negative emotions even increase the likelihood of being spread, and, besides, rumors and fake news are able to create fear and thus, an individual's behavior is affected by his or her anxiety.

These severe consequences are also picked up by K. Bryanov and V. Vziatysheva [Bryanov & Vziatysheva], who emphasize that the proliferation of false information in a digital news environment such as social media platforms is able to harm an entire society in many different ways. However, the greatest danger is when people believe that misinformation is factually accurate. The authors conclude that there is a great

need for further empirical investigations on the topic people's susceptibility to fake news in an online environment such as social media platforms.

Regarding the behavior of parents with young children, during the last two years several scientists investigated parents' behavior. For instance, M. Drouin et al. [Drouin et al.] mention that parents worry about their children's excessive use of social media during the COVID-19 disease. The authors could identify a connection between parents' anxiety and their children's use of social media, since with the beginning of social distancing, children started to increase their social media use. Thus, there is a high potential for rumors and fake news to cause erroneous behavioral action.

Hypothesis. The introduction has shown that corona mitigation measures significantly affected the health of children and adolescents, since they more frequently suffer from the contact restrictions and the closure of institutions than elder people. Due to the fact that on one hand, parents generally fight for their children's physical and mental health and on the other hand, parents are additionally burdened with caring for their children due to closed schools and day care centers, it can be assumed that people with children under the age of 12 initially possess or develop a more critical attitude towards corona mitigation measures.

Secondly, in the age of digitalization, automatization, networking and globalization, social media becomes increasingly important. Besides true information that is shared on social media, rumors and fake news are also shared and most people have difficulties in distinguishing between true and false news. In the context of the present study, parents of children under the age of 12 are also exposed to rumors and fake news on social media and it can be assumed that they are influenced regarding their behavior to a certain degree.

Finally, the part dedicated to the behavioral modification through rumors and fake news could show that rumors and face news are able to modify people's behavior. People react in different ways: some develop fear, some get angry, some do not longer follow the rules and some even participate on violent demonstrations against mitigation measures. Due to the reasons explained above, it can be assumed that parents are more prone to believe in rumors and fake news on social media and change their attitude towards governmental mitigation measures during the pandemic.

By means of the following hypothesis, it will be investigated if parents do more frequently believe in rumors and fake news spread on social media, i.e.: people with children under the age of 12 in the same household do more frequently believe in rumors and fake news spread on social media as childless people do.

Research Design. The survey was conducted in the Federal Republic of Germany. Thus, only people living in Germany were questioned, since they are supposed to be familiar with the governmental mitigation measures of the Bundesregierung. By means of the quantitative method, the pre-defined hypothesis can be answered, whereas descriptive and inferential statistics is used. The present research project

strives for analyzing a relatively large sample on the base of numeric data, which can only be done by using the quantitative method. As a data collection instrument, a structured and standardized online questionnaire was chosen. The participants of the planned survey could choose between different answering options, whereas open questions were totally avoided. The questionnaire contains 42 variables, whereas in most cases, these variables represent statements that had to be evaluated by the participants. The standardized questionnaire consists of several thematic sets of questions. Sociodemographic data were collected at the questionnaire's end, since it is assumed that people might get discouraged once they are questioned on sensible personal information first. To motivate participants and to emphasize the importance of the study, an introductory text explained the research topic briefly.

All questions were formulated in German, since the online-survey was conducted only in Germany and it should be avoided that participants get problems in understanding the questions. To help international readers, all items were translated into English. Additionally, the questions contained answering options, which are presented below a specific question. Some statements have to be evaluated by the participants by using a four-point-scale with the following meaning:

1 – fully correct / I totally agree;

2 – rather correct / I agree;

3 – rather not correct / I generally do not agree;

4 – not correct at all / I do not agree at all.

The reason for selecting the above-explained four-point-scale instead of the more popular five-point-Likert-scale is that participants tend to choose the neutral middle, if they struggle with their evaluation and are not sure what to answer. In the case of four-point-scales, participants are forced to choose one side.

In this way, the analyses of a broad sample could be significantly facilitated. Additionally, the strongly standardized approach helps to identify potential correlations between variables.

Data Collection and Analysis. The survey was conducted January to March 2021 by means of the online platform SurveyMonkey. The platform was chosen since other researchers [e.g., Johansen et al.] also used SurveyMonkey for academic research or rather to spread their online questionnaire via internet link to people. By means of this service, a link to the present online survey was created and in a next step could easily be distributed to potential participants by using several social media platforms such as Facebook[*], Instagram[*], WhatsApp and Twitter.

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[1] DESTATIS: Bevölkerungsstand [el. source]: https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bevoelkerung/Bevoelkerungsstand/_inhalt.html (accessed 27.09.2022).

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* Belongs to Meta – the organization is recognized as an extremist and banned in Russia.

Initially, the sample size was calculated by using the following formula:

$$\frac{\dfrac{z^2 * p(1-p)}{e^2}}{1 + (\dfrac{z^2 * p(1-p)}{e^2 N})}$$

whereas

N = Population size
e = Confidence interval or fault range
z = Confidence level
p = Percentage value.

Since there are 83.1 million people who live in the Federal Republic of Germany, the entire population is directly affected by the governmental mitigation measures, and thus, N = 83.1 million. Additionally, a confidence interval of 5%, a 95% confidence level and p = 0.5 as an estimate for the sample size were chosen. Inserting these values into the formula leads to a sample size of 383 people from Germany.

Although the survey was open for three months, it was not possible to reach more than 324 people due to low answering rates. Considering the above-explained sample calculation, the calculated 380 cases could not be gathered within the three months. However, the final sample of 324 people is sufficient to gather first insights into their behavior during crisis situations such as the current COVID-19 pandemic. As further explained in the conclusion, the study should be conducted with a larger sample.

For the analysis of the survey's results, the present study also uses statistical methods such as the calculation of median values, averages, absolute and relative frequencies as well as percentages. The analysed data is presented with the supporting help of diagrams, tables and figures. The IBM software SPSS was used to conduct an appropriate descriptive analysis. By the help of SPSS, frequencies, standard deviations, means and correlations were calculated and analyzed.

Results. As explained in the introduction part, it can be assumed that people with younger children under the age of twelve are more susceptible for rumors and fake news on social media, especially if these rumors and fake news are somehow related to their children's health.

To check the hypothesis, the variable Q36 (number of children under the age of twelve in the same household) was considered in connection with the variable Q1 (fake news and rumors statements spread on social media) as well as the variable Q16 (I believe there is some truth in rumors and fake news spread on social media). By means of a cross table, all rumors and fake news statements of Q1 were checked to identify any differences between the ratings of people with no, one, two, three or even more children under the age of twelve.

The following table only shows the connections for the fake news statement "The COVID-19 vaccination changes the genetic material", since the presentation

of all statements would take too much space. Nevertheless, the tendency of the results is more or less the same for all statements: there is no significant relationship between the number of children under the age of twelve and the participants' belief in rumors and fake news. However, there is one exception, which is presented in the Table 1.

Table 1. Connections for the fake news statement "The COVID-19 vaccination changes the genetic material", cross table Q1 and Q36, source: own research / Уровень доверия к фейковой новости «Вакцинация от COVID-19 влияет на изменение генетики», в зависимости от количества детей в семье – перекрестная таблица Q1 (фейковые новости и слухи, распространяемые в социальных сетях) и Q36 (количество детей в возрасте до двенадцати лет в одном домохозяйстве), источник: собственное исследование автора

| | | Q36: number of children | | | | | |
		no	1	2	3	>3	Sum
The COVID-19 vaccina-tion changes the genetic material	Do not agree at all	105	27	21	5	1	159
	Do not agree	70	20	20	3	0	113
	Might be possible	26	10	6	4	0	46
	Definitely	3	1	1	0	1	6
Sum		204	58	48	12	2	324

The table above shows the participants' ratings depending on their number of children. To check whether there is a significant connection between the belief in this specific rumor that could be extracted from social media and the participants' number of children under the age of 12, a Chi-square test has been conducted (Table 2).

Table 2. Chi-square Test Q1 and Q36, source: own research / Проверка результатов по критерию хи-квадрат, источник: собственное исследование автора

	Value	df	Asymptotic Significance
Chi-Square Pearson	32,011[a]	12	,001
Likelihood-Quotient	12,001	12	,446
Number of cases	324		

An asymptotic significance of 0.01 could be calculated, which is smaller than the pre-defined significance level of 0.05. This indicates a significant connection: people with one or more children under the age of twelve do more frequently believe that the COVID-19 vaccination changes the genetic material than childless people do. However, it must be mentioned that the number of participants with more than two children is relatively small, which means that the obtained results should be viewed with caution. On the other side, the results might show an important tendency. Analogous to the statement above, all statements of Q1 have been checked with regard to the participants' number of children. Nevertheless, besides the statement above, there is no other significant connection.

Discussion. As explained in the introduction part, rumors and fake news are able to decrease people's trust in health agencies and/or governments. Especially in the case of rumors, there is the risk that they are perceived as credible information in order to prevent people from an infection or to fight an infection. Additionally, there is the risk that people prioritize rumors over evidence-based information. Following misinformation has already led to deaths and caused severe illness.

Comparing the present study's results with previous findings, other global crises in recent years or decades can be considered. For instance, fake news and rumors also appeared during the development of the HIV epidemic and according to C. Bateman [Bateman], in South Africa people refused to have antiretroviral therapies just because the government strived for the promotion of traditional medicines. Due to this, the vertical transmission of HIV was fueled and more than 300,000 people died, since they perceived the governmental information as being credible. C.A. Klofstad [Klofstad et al.] concentrated on an investigation of people's belief in rumors and fake news on the Zika virus and found out that some people were convinced the Zika virus has been used as a biological weapon. During the time of the Zika virus' outbreak between 2015 and 2016, rumors and fake news on this topic could be found on all social media platforms. Same results could be observed by S. Oyeyemi [Oyeyemi et al.], who investigated people's behavior according to misinformation during the Ebola virus' outbreak.

The present study's findings show that human behavior during global crises situations such as the current pandemic as well as a possible change of human behavior due to rumors and fake news spread on social media is a complex issue, since there is a huge variety of different influencing factors. Sociodemographic characteristics such as age, gender, children, personality, group memberships, previous experiences and specific attitudes such as anxiety or a critical attitude all affect an individual's susceptibility for rumors and misinformation during a pandemic. Other scientists, such as N. Sharareh [Sharareh] came to the same conclusion, as they were investigating people's behavior during the Ebola crisis.

The trust between people and public authorities or rather the government is essential in terms of managing crises situations such as the actual COVID-19 pandemic. The present study's results show that rumors and fake news affect this trust as they create mistrust. This again can affect people's behavior during the pandemic. For instance, people might change their health-seeking behavior such as participating on the COVID-19 testing and the vaccination. Thus, for governments, public authorities and institutions, it is essential to understand how corona-related rumors and fake news circulate, as they need to develop appropriate mitigation measures and strategies.

Conclusion. The COVID-19 pandemic has highlighted the vulnerability of an integrated world. Besides, the results of the study has shown that not everybody agrees with the governmental mitigation measures and for some people, the negative side-effects especially with regard to children's health predominate the positive effects of the mitigation measures. Especially parents of young children are stressed and

overwhelmed due to the corona pandemic and the governmental mitigation measures, since both affect their children's psychological condition. The research has shown that parents with one or more children under the age of twelve do more frequently believe that the COVID-19 vaccination changes the genetic material than childless people do; on whatever basis they have formed their opinion.

It can be assumed that as the pandemic has progressed, there has been a shift in a societal sentiment away from so-called state media towards so-called alternative media, which may or may not have been less balanced and in total, have been less hand-curated than data-driven digital platforms. Further research will have to show which factors increase or decrease the credibility of a message in the wider context, i.e. also in the context of its messenger, the communication channel through which it was delivered, the timing, etc. What in particular will offer for scientists in the field of human behavior a huge variety of different approaches to observe parent's behavior. Potential effects of the pandemic on human behavior will also be carefully observed by governments, health agencies and other institutions and organizations in order to react in an appropriate way. The potential effects on human behavior are manifold and cannot be predicted precisely. However, some assumptions can be made, which represent target points for further research.

In this context, it can be assumed that trust will be an important cost factor, since the pandemic gives the impression that other people and/or locations might represent an invisible threat. The future is uncertain and life planning is associated with fear. This especially regards important decisions such as a change of home and workplace or larger purchases. In general, it can be assumed that people will be less risk-seeking and in contrast, stronger focus on what is familiar. Crises such as the past corona pandemic are associated with a loss in trust – this might be especially true for parents with young children. Therefore, it is essential to regain lost trust by means of effective measures.

Finally, the COVID-19 pandemic is referred to be the most decisive global event in the nearest past. It changes both people's attitudes as well as people's behavior. Everybody, independent from his or her individual attitude, characteristics or group membership is somehow affected by similar threats to his or her livelihood and health. However, people respond completely differently to these threats, as could be shown on the example of parents in the present study. Additionally, it forces organizations to react and to take measures whose effects stands the test of time. This is because most of the changes will stay, even though the immediate threat of the virus decreases with ongoing time.

Another big shift as a result of the current corona pandemic is the virtual century: during the pandemic, people's everyday life such as the fundamental areas of life work, shopping and social interactions and communication has drifted more or less completely into the virtual world of the internet. This again will probably be accompanied by massive changes regarding the way how people communicate and interact, in private as in the work sphere: how people will communicate in private, express their concerns, lead a discussion as well as on how they will effectively collaborate at work.

In the context of human behavior, the return to the everyday life after lockdowns, contact bans and travel warnings has probably been the most sensitive issue which effected many spheres of the socio-cultural life. However it can also be assumed that people have and will develop a greater understanding for the social role of governments and/or institution and organizations and thus, will understand the importance of cohesion. On the other hand , this is depending on the further revision of the crisis and especially, how governments and public authorities are going to review openly and publicly past actions and how they communicate to manage future crises. However, it seems that over time, since the end of pandemic protection measures, more and more people develop a critical attitude towards the government and public authorities.

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