# The Impact of Political Polarization on the COVID-19 Vaccine Hesitancy in the United States: A Qualitative Study

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## Abstract

This study explored the role of political polarization in an individual's decision of receiving the COVID-19 vaccine. A total of 15 participants participated in individual interviews and focus group discussions about the relationships among domestic political polarization, vaccine hesitancy, and behavioral responses to the COVID-19 pandemic. Political affiliation affected an individual's decision on the COVID-19 vaccination, such that people who identified as Liberals and Democrats were more accepting of the vaccine. On the other hand, the level of influence declined over time (2020-2022) when the general conception of COVID-19 immunization shifted from political to personal. Results provided qualitative support to the previously identified positive relationship between divided political opinions and COVID-19 vaccine hesitancy and highlighted the decreasing trend in the power of political polarization in vaccination and the existence of other factors.

**Keywords:** COVID-19, vaccine hesitancy, political polarization, partisanship, ideology

## 1. Introduction

In recent years, political polarization, the divergence of political attitudes toward the ideological extremes (Kerr et al., 2021), has significantly increased in the United States (Druckman et al., 2021; Iyengar et al., 2019), which has made cross-party accordance and collaboration difficult. In 2020, the explosion of the coronavirus disease 2019 (COVID-19) pandemic further divided the already polarized political environment in the United States. The COVID-19 pandemic started an unprecedented global health crisis that required collaborative efforts to combat the virus (Mohamed et al., 2020), but the increasing polarization hindered Americans from accomplishing so, which contributed to the severe health conditions in the country. The governmental responses to the COVID-19 pandemic showed a fundamental division of ideologies between the Democratic and Republican parties (Iyengar et al., 2019; Iyengar & Westwood, 2015). Congressional debates on the COVID-19 pandemic consisted of partisan poles: Democrats emphasized the severity of the coronavirus more frequently, while Republicans focused more on businesses and the role of China (Green et al., 2020). When the COVID-19 vaccines were made available, they became a potent protection against the virus for millions of human beings, but hesitation to receive the vaccines remained (Elliott et al., 2022). Understanding the effect of political polarization on COVID-19 vaccine hesitancy will help draw conclusions that could apply to broader fields beyond public health. Similarly, polarization has significant impacts on many other transnational issues that require cross-party cooperation, such as climate change and refugee crises.

To our knowledge, previous studies have tried to assess the relationship between political polarization and behavioral responses to the COVID-19 pandemic, including but not limited to COVID-19 vaccine hesitancy (e.g., Soares et al., 2021). Some of these studies have found that partisan polarization on the elite level influences the public behaviors of members of each party (e.g., Druckman et al., 2013). National news outlets, some of which tend to report on one major political party more favorably than the other, were important players in shaping public opinion on the COVID-19 pandemic in the early stages. The partisan division among those news outlets was reflected in the drastically different perspectives on the virus (Hart et al., 2020). Other studies have found that liberals generally perceived higher risks, trusted the governmental response less, and were more willing to apply protective behaviors such as masking and vaccination compared to conservatives (Kerr et al., 2021). Those findings contributed to identifying the role political polarization played in public responses to the COVID-19 pandemic within a restricted time frame.

While earlier work has yielded invaluable insights, it leaves a significant gap that could provide more comprehensive and applicable results. Past studies focused on comparing the answers across different political factors, such as political parties and ideologies, within a time frame (e.g., Rodriguez et al., 2022) to identify the contrast between different political affiliations (e.g., Gerretsen et al., 2021). However, based on the developmental trend of the COVID-19 pandemic, in addition to instant effects, the impact level of political polarization can vary over some time (Fridman et al., 2021). Investigating the perceived changes in the impact of political polarization on COVID-19 vaccine hesitancy is one of the aims of this study.

Understanding the relationship between political polarization and the hesitancy to use COVID-19 vaccines is critical in the current polarized environment if policymakers are to make more effective policies on the pandemic. This study examines the connection between participants' political affiliation and COVID-19 vaccine hesitancy and draws indications from participants' answers in the interviews. Although a variety of protective behaviors exist, this study focuses on the COVID-19 vaccine because it is a significant indicator for policymaking and has had fewer studies conducted on it. This study has three objectives: a) to assess the connection between an individual's political affiliation, specifically political party and ideology, and their attitude toward the COVID-19 vaccines; b) to recognize responses to the COVID-19 pandemic in a polarized context; and c) to provide suggestions for future policymaking on the vaccination during the COVID-19 pandemic.

The purpose of this study is to explore American citizens' perceptions of the impact of political polarization on COVID-19 vaccine hesitancy based on their own experiences and understandings through qualitative methods. A significant goal of the study is to explore the reasons for the trend that participants observe in the impact level of political polarization over time. Findings from this study provide insight into the relationship between political polarization and vaccine hesitancy, specifically to the COVID-19 vaccine, which will help policymakers better understand the divided public responses to the COVID-19 vaccine and, therefore, adjust the related policies based on the polarized political context.

The research questions for this study aimed to uncover U.S. citizens' perceptions of the relationship between political polarization and the COVID-19 vaccine hesitancy.

1)      What are the impacts of political polarization on the COVID-19 vaccine hesitancy in the United States?

2)      How does the level of the impact change over the time of the COVID-19 pandemic?

The study is divided into six sections. Section one of the paper consists of the general introduction, which includes the background of the study, the statement of the problem, the objective of the study, the research questions, the significance of the study, and the organization of the study. Section two is the literature review, which evaluates the works of other researchers on the subject, their approaches, and the researchers' criticisms of their limitations. Section three provides the research methodology adopted for the study, which is a phenomenological approach comprising individual interviews and focus group discussions. This section also states the process of data collection, including the design, the role of the researcher, and the composition of the sample body, in detail. Section four summarizes the findings, which report the trends found from analyzing interview responses and explains the method used to examine the data. Section five, discussion, presents the analyses of the findings: comparison to previous studies, the significance of the findings, and the limitations of the study. The final section, the conclusion, sums up the work performed in the entire paper. It provides a clear view of this study, by providing a summary of its significance and recommendations for the academic field.

## 2. Literature Review

### 2.1 Vaccine Hesitancy during the COVID-19 Pandemic

The COVID-19 pandemic has existed for three years, and society has adapted to a new functional format with the virus-based modifications involved. General opinions toward the coronavirus varied in the United States; awareness and acceptance of the virus have increased significantly since the beginning of the pandemic (Pogue et al., 2020). However, vaccine hesitancy, defined as deferred acceptance or refusal of vaccination by choice (MacDonald, N. E., & SAGE Working Group on Vaccine Hesitancy, 2015), on COVID-19 vaccines is still high in the country. The definition of vaccine hesitancy emphasizes voluntarily, which refers to the circumstance when enough vaccines are provided, and the individual refuses the vaccination for subjective reasons (Alamoodi et al., 2021). In context, vaccine hesitancy describes individuals with free access to the COVID-19 vaccines who refuse to get injected based on personal choice.

Vaccine hesitancy can be attributed to various factors, both from the vaccine itself and the different perception of the coronavirus. Some people suspect that the short development period lacks adequate testing; some perceive the coronavirus as no more serious than the flu–hence lack the motivation for vaccination (Soares et al, 2021).

Individuals' original attitudes toward other vaccines also affects their opinions on the COVID-19 vaccine. American citizens who are suspicious of the technology behind all vaccines perform similar responses to the COVID-19 vaccine (Troiano & Nardi, 2021). Other factors like loss of income and religious restrictions also prevent people from receiving the vaccine (Soares et al, 2021; Troiano & Nardi, 2021). This widely existing vaccine hesitancy hinders American society from effectively confining the spread of the coronavirus (Dror et al., 2020). Two of the multiple driven factors of vaccine hesitancy are exceptionally important in this circumstance: the risk perception of the coronavirus and the original attitude toward vaccines (Troiano & Nardi, 2021). Both are directly and indirectly related to the ongoing polarization.

### 2.2 The Role of Political Polarization

Political polarization is crucial in understanding the COVID-19 vaccine hesitancy because it shapes major concerns that the public has toward receiving the vaccine. The severity of the virus is perceived drastically different between the Democratic and Republican parties, with the Democrats acknowledging the harms of the coronavirus while the Republicans denying the risks (Kerr et al., 2021). The division of attitudes also exists between liberals and conservatives. This split in the perception of the pandemic itself results in two contradictory opinions toward receiving the COVID-19 vaccine: individuals who perceive higher risks in the virus are more likely to receive vaccination compared to the ones who perceive lower risks. The lack of trust in all vaccines also aligns with the polarization of risk perception of the COVID-19 pandemic, where overlap was found between people who doubt the vaccine technology and perceive a lower risk of the coronavirus, which consists more conservatives than liberals (Fridman et al., 2021).

Previous research observed a decline in public intentions of receiving the COVID-19 vaccine when it became available (Fridman et al., 2021). The researchers found that participants who identified as Republicans drove the decreasing trend. In contrast, the rate of individuals who identified as Democrats remained stable (Khubchandani et al., 2021; Fridman et al., 2021). This observation supports the partisan division on the COVID-19 vaccine hesitancy.

Political parties and political ideologies are the frequently used variables in past studies (e.g., Stoetzer et al., 2022). Political parties represent the Democratic and Republican parties. Voters who identify as independent are considered as a separate category, while independents who indicate regular inclination to one party are counted as voters of that party. The political party is selected as a variable because the distinction, especially between the Democratic and the Republican parties, is enormous and supporters of the two parties hold different, even opposite, views on many societal issues, which makes this variable representative of the various voices (Rodriguez et al., 2022). Political ideologies include the liberals and the conservatives. People classified under these two ideological groups usually have contrasting values, views, and behaviors (Vegetti, 2019). Using this variable along with political parties forms a more comprehensive categorization of political identities, and therefore, the investigation could better represent American citizens.

### 2.3 Contextualization of the Present Study

Based on previous studies, masking is a key behavior to prevent the coronavirus from spreading, and the behavioral responses are separated by political parties. Democrats were generally more likely to mask (compared to Republicans) in early stages of the COVID-19 pandemic because they perceived high risks of the spread of the coronavirus. In contrast, more Republicans opposed wearing a mask because they did not perceive the virus as risky, and at the beginning of the pandemic, they trusted the Trump administration's assertion about the pandemic (Kerr et al., 2021). The clear boundary between the Democratic and Republican parties demonstrates the extreme partisan division in current society in the United States. Masking behavior is also divided between political ideologies–the liberals and the conservatives (Wegemer & Keyserlingk, 2022). More liberal Americans trusted scientific analyses of the coronavirus, and therefore, are more likely to follow the guidance of wearing face masks. However, many conservative Americans trusted Republican leadership, including the President, over guidelines suggested by the World Health Organization (WHO), so they did not perceive the virus as risky and refused to mask. The majority of the past studies of the behavioral response to the COVID-19 pandemic have focused on the masking behavior, and fewer investigated the opinions and responses to the injection of the COVID-19 vaccine. This study examines the attitudes toward COVID-19 vaccines among dissimilar political parties and ideologies.

Furthermore, most past studies on political polarization during the COVID-19 pandemic were quantitative, where the researchers' analyzed trends and indications based on one (or multiple) selected variables. For example, a quantitative study investigated the rate of vaccine hesitancy among healthcare workers in the United States (Elliott et al., 2022). From 266 completed online surveys from healthcare workers, 26.6% expressed concerns about receiving the COVID-19 vaccine. The researchers also found the most considered reasons for the hesitance from

the numerical indicators of the data. Quantitative research has provided substantial evidence-based information for policymakers and American citizens to better realize the country's current political atmosphere and its representation in the COVID-19 pandemic. However, fewer studies have applied a qualitative approach to examine the relationship between political polarization and the COVID-19 vaccine hesitancy. Aiming to fill the gap, this study adopts a qualitative method that interprets word responses collected from interviews to investigate the effect of political parties and ideologies on people's attitudes toward the COVID-19 vaccines in the United States.

Based on the above analysis, this study will investigate these three questions:

Q1: How do people's political party and ideology impact their attitudes on the COVID-19 immunization?

Q2: What other factors contribute to the COVID-19 vaccine hesitancy?

Q3: How does the impact of people's political affiliations change over three years?

## 3. Methods

### 3.1 Design of the Study

This study involved eight interviews and two focus groups. Researchers and respondents used interviews to reconstruct the past, interpret the present, and predict the future (Erlandson et al., 1993). By conducting interviews, the researcher learned about the participants' past experiences and perceptions of the impacts political polarization has on the COVID-19 vaccine hesitancy. As a result of the interviews, the researcher gained an in-depth understanding of each of the eight different perspectives. The two focus groups, on the other hand, captured a larger number of perspectives through interactive discussions. Participants were able to exchange opinions and discuss areas of agreement and disagreement in the focus groups. Together, the interviews and focus groups provided both in-depth and wide-ranging perspectives.

### 3.2 Role of the Researcher

For the study, the researcher talked with participants via Zoom for them to share and discuss their experiences and opinions regarding the political polarization on the COVID-19 vaccine hesitancy. During interviews and focus group conversations, the researcher disclosed that she would purely utilize the data for her research. To maintain anonymity, she assured the members that their names would not be revealed. All participants consented to be recorded.

### 3.3 Research Participants

The sample included 15 participants. They covered different race, gender, age groups, education levels, socioeconomic status, cultural backgrounds, ideologies and political parties. Among the participants, six were men and nine were women; ages ranged from 16 to 65 years old. The majority of the participants were located in New York State and Ohio State. Comparatively, New York State is more left-leaning and Ohio State is more right-leaning; this characteristic is reflected in the sample by more participants from New York identifying with liberal and Democratic and more participants from Ohio with conservative and Republican. New York State is also more racially diverse than Ohio State; in the sample, more participants from New York are Asian, Hispanic and African Americans and more participants from Ohio are white. All participants volunteered to take part in the conversations.

### 3.4 Data Collection Procedures

This study conducted eight semi-structured, in-depth interviews with participants and two focus group discussions to gather perspectives and experiences regarding the role political polarization plays in the COVID-19 vaccine hesitancy. The researcher chose these two data collection methods to gain both in-depth and wide-ranging perspectives on the topic.

This study conducted interviews and focus groups in December 2022 and January 2023 using Zoom software. All the semi-structured interviews and focus group discussions were conducted over zoom mainly to accommodate for the spread in geographics in the sample. In-person interviews were less practical with participants from different parts of New York and Ohio states. Phone calls were considered as an alternative, but the researcher discovered that facial expressions and eye contacts were crucial, especially for focus groups discussions with multiple participants. Virtual meetings on Zoom were able to achieve convenience and quality of communication at the same time. However, the accessibility of Zoom meetings is at the cost of closer face-to-face interactions both between the interviewer and interviewees and among participants of focus group discussions.

The eight semi-structured interviews lasted from approximately 20 minutes to 50 minutes, and both focus group discussions lasted approximately 1 hour and 30 minutes. The large difference in durations between interviews resulted from the participants' different habits and personalities. Participants who often elaborated on their answers

had longer interviews, while participants who did not leave much space for follow-ups in their answers had shorter interviews.

Table 1 shows the exact dates, times, locations, and participants of the data collection process. This study used Zoom software to record the data. The researcher also took handwritten notes during the conversation. In addition to the prepared questions, the researcher asked follow-up questions based on participants' responses during the interview.

Table 1. Interview and focus group dates, times, locations, and participants

| Meeting | Date | Time (Eastern Standard Time) | Location | Participants |
|---|---|---|---|---|
| Interview | December 22nd, 2022 | 7:00 p.m.-7:30 p.m. | Via Zoom | Participant A |
| Interview | December 23th, 2022 | 10:00 a.m.-10:20 a.m. | Via Zoom | Participant B |
| Interview | December 23rd, 2022 | 11:00 a.m.-11:30 a.m. | Via Zoom | Participant C |
| Interview | January 3rd, 2023 | 8:00 p.m.-8:50 p.m. | Via Zoom | Participant D |
| Interview | January 11th, 2023 | 3:00 p.m.-3:40 p.m. | Via Zoom | Participant E |
| Interview | January 16th, 2023 | 1:00 p.m.-1:40 p.m. | Via Zoom | Participant F |
| Interview | January 18th, 2023 | 5:30 p.m.-6:00 p.m. | Via Zoom | Participant G |
| Interview | January 20th, 2023 | 5:20 p.m.-5:50 p.m. | Via Zoom | Participant H |
| Interview | January 24th, 2023 | 3:50 p.m.-4:15 p.m. | Via Zoom | Participant I |
| Interview | January 30th, 2023 | 7:20 p.m.-7:50 p.m. | Via Zoom | Participant J |
| Focus Group | February 4th, 2023 | 6:00 p.m.-7:30 p.m. | Via Zoom | Participant K, Participant L, Participant C, Participant M |
| Focus Group | February 10th, 2023 | 5:00 p.m.-6:30 p.m. | Via Zoom | Participant N, Participant F, Participant G, Participant O |

*3.5 Data Analysis Procedures*

After collecting the data, the researcher transcribed the recordings into words. To begin coding, the researcher listed several categories summarized from the conversations. They included experiences with the COVID-19 pandemic, attitude toward COVID-19 vaccines, motivation, perceived effectiveness of vaccines, opinion on political polarization, perceived correlation of polarization to vaccine hesitancy, and change of opinions over time. The researcher then sorted participants' responses into these categories. After sorting responses, the researcher identified themes, patterns, and divergences from the eight interviews and the two focus groups.

## 4. Findings

Several themes emerged from the data. First, most participants perceived political polarization as a factor of the COVID-19 vaccine hesitancy. They observed the relationship from both political parties and ideologies. At the beginning of the pandemic, supporters of the Republican party listened to the government more and trusted scientific experts less compared to people in the Democratic party; Republicans also perceived a lower risk of the virus and were less willing to follow rules such as mask wearing and the lockdowns than Democrats. People with a conservative ideology hesitated more in following the protective guidelines and withdrawing from the normal, pre-pandemic lifestyles. When the COVID-19 vaccine was first released to the public, fewer Republicans received the vaccine than Democrats; more conservative people doubted and rejected the vaccine.

A second finding was all participants' agreement on the necessity of cross-party cooperation and that polarization impeded such collaboration during the COVID-19 pandemic. Participants emphasized the medical nature of the coronavirus and noticed that it has been weaponized for political use. According to participant H, the pandemic is a serious issue where "the spread needed to be stopped". He told the researcher "It is unfortunate that the pandemic became a political issue because it should not be" and "people focused on blaming others for the cause".

Third, several participants admitted that polarized political conditions contributed to the hesitancy toward the COVID-19 vaccine, but distrust of the development of the vaccine is also a crucial factor. Particularly, participant F felt strongly about this point, where she expressed, "the development of the COVID-19 vaccine was too short", "there was not enough testing done" and "the potent governmental support made me doubt the reason behind". The examples from participant F's responses all supported the presence of people's suspicions about the science behind the vaccine and the widespread encouragement for immunization, which were intensified by polarization.

Fourth, multiple participants mentioned that the local circumstances of the region affect people's attitudes and behaviors toward the coronavirus. Participant C pointed out that in metropolitans with high population density and high usage of public facilities, residents tend to be more cautious and more accepting of the COVID-19 vaccine because the environment determined the infection rate to be higher than in rural areas. This finding indicates that people take the COVID-19 vaccine as a protection tool and produce the decision on injection based on surroundings that affect their physical health. Along with political affiliations, factors similar to regional circumstances contribute to hesitancy about immunization.

Finally, all participants acknowledged the decreasing trend in the impact of political affiliations on people's decision of receiving the COVID-19 vaccine over time. The polarized atmosphere in politics was never extinguished, but its effect on the vaccine hesitancy during the pandemic was not as powerful as time passed by. Participant D told the researcher, "After the vaccine came out for over a year, the pandemic changed from a political issue to a personal issue". Participant H also talked about the contrast between people's motivation for vaccination when the vaccine was first released and now. He stated that the widespread encouragement for vaccination from the Democratic party was once extremely high, and many people were vaccinated because of that; now, people consider the medical aspect more to make the decision.

*4.1 Methods of Verification*

The researcher verified his findings through triangulation. In triangulation, the researchers asked the same research questions to different study participants. And they collect data from multiple sources implementing different methods to answer the same questions. Rather than relying on a single method or sample, the researcher of this study conducted multiple interviews and a focus group. Through the different methods, the researcher then looked for themes and divergences by triangulation. This allowed the researcher to feel more confident in the results than had he employed a single method or sample, so triangulation establishes credibility and trustworthiness.

Since the interview and focus group samples consisted of participants mainly from New York State and Ohio State, their responses might not be generalizable to the entire country. However, transferability allows the findings of this study to be generalized and applied to other situations and contexts. Researchers cannot prove definitively whether outcomes based on the interpretation of data are transferable. However, they can establish that it is likely. A sample of participants that is more distributed in geography around the nation might have provided a more diverse range of perspectives and experiences.

**5. Discussion**

A major theme perceived in this study is the gradual weakening in the effect of political affiliations on people's hesitancy of immunization for the coronavirus. In 2020, due to the restricted access to related information and the lack of understanding of the virus, political identities played an important role in people's choice of words to believe in and actions to take. Because of the potent effect of political voices, the polarized environment became a major contributing factor to the divided view on the risk level of the virus and rules to follow for protection. A similar trend of division occurred when the COVID-19 vaccine was released. The short-term development and uncertainty about the technology behind discouraged a portion of the public from vaccination. At the same time, the Democratic and Republican parties advocated for the opposite viewpoint on the vaccine, which pushed the people farther to the two ends. However, as people adapted to the pandemic and gained an understanding of the virus from various sources, the voices of the politicians decreased in their influence. Over time, the choice of receiving the COVID-19 vaccine turned from a politics-driven decision to a personal one, regarding physical health rather than political beliefs. After the pandemic has existed for three years, with the intensified political polarization, people's political affiliation still contributes to the hesitancy on the COVID-19 vaccine, but the number of people affected and degree of influence both decreased by a significant amount.

Compared to recent studies on this topic, this research contains both commonalities and differences to them. For common findings, the data collected in this study supported the trend that, especially in the early stage of the pandemic, people that aligned themselves with the Democratic party were more likely to perceive a high-risk level of the virus and take protective behaviors such as social distancing and masking than people who identified with the Republican party (Gadarian et al., 2021; Druckman et al., 2021). The same trend occurred with the COVID-19 vaccine, which was concluded by many previous studies. Concurrently, this study identified a reduction in the effect of political polarization as a contributing factor to public resilience of the COVID-19 vaccines over time, which was unique from past studies. Extracted from the participants' responses, this trend could be attributed to the increase in people's familiarity with the virus and the vaccine.

*5.1 Limitations and Future Research*

Like all studies, this one had several limitations. First, the relatively small number of participants (15 participants in total with ten individual interviews) limits the diversity of the data collected. Future research should include a larger sample to perceive and investigate more nuances in participants' responses. A sample with greater size could reveal more distinctions in opinions and better categorize trends in findings. Simultaneously, since the researcher aimed to have a sample representative of the U.S. population, participants were chosen from different age groups, genders, political affiliations, races, and other defining factors of one's identity. As such, the researcher considers the study effective in this regard.

In addition, with nearly half participants from around the same region, the perceptions of the pandemic and vaccines are limited and could result in conclusions not applicable to other parts of the nation. Each state had different policies regarding the COVID-19 pandemic and vaccine; factors like population density and healthcare facilities varied for each region. The mainstream news outlets were also different, even contrasting, across the United States, which contributed to the deviations in the general understanding of the virus and vaccines. Although the media was split according to political ideologies, residents of the same area were likely to receive similar public information, both from the media and the government, and have similar experiences during the pandemic. Future research should seek volunteers from a variety of geographic and geopolitical backgrounds to avoid biases generated by similar information perceived. However, the political representation of the two states sit on the opposite sides of the spectrum, which makes the small sample more representative of the nationwide political scene. Since New York is seen as center-left and Ohio is center-right, this study could still provide useful insights into the national situation. Furthermore, the researcher tried to minimize the effect of this limitation by guaranteeing distinctions in other identity measures, such as age, occupation and socioeconomic status, when selecting participants from the same region.

**6. Conclusion**

This study aimed to better investigate the impact of political polarization on the COVID-19 vaccine hesitancy in the United States. Results provided support for the validity of the previously found trend that Liberal and Democratic Americans have a higher percentage of likelihood of receiving the COVID-19 vaccines (e.g., Kerr et al., 2021) with qualitative evidence. Furthermore, the results of this study contribute to a deeper understanding of the changing pattern of factors that affect people's decision-making processes (e.g. political identity), by suggesting that the overall impact of polarization declined over time. Given the coexistence of the relationship between political affiliation and vaccine hesitancy and the decreasing trend of its impact over time, proper policies regarding the COVID-19 vaccination should maintain the politically polarized environment in consideration while remembering that personal factors are more impactful now, than three years ago.

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