To convince, to provoke or to entertain? A study on individual motivations behind engaging with conspiracy theories online

To Convince, to Provoke or to Entertain? A Study on Individual Motivations behind Engaging with Conspiracy Theories Online

Abstract

The growing dissemination of conspiracy theories on social media has challenged the well-being of societies. This study aims to understand why individuals would engage with conspiracy theories and what role specific beliefs, but also individual factors such as personality traits play. To answer these questions, we conducted surveys in six countries (Belgium, Switzerland, Germany, France, the UK, and the U.S.) and investigate three motivations (conviction, entertainment, and reaction provocation) behind the dissemination of conspiracy content on social media. Our findings demonstrate that across issues individuals who indicated they would engage with conspiracy theories do it mainly because they are convinced by the message. Political orientation and issue attitudes proof to be connected to individual engagement with conspiracy theories out of conviction, while dark personality traits such as narcissism and psychopathy are valid predictors for why individuals would disseminate conspiracy theories out of entertainment reasons or to provoke reactions.

Keywords: conspiracy theories, motivations, dissemination, personality traits

Introduction

The spread of disinformation and the emergence of conspiracy theories on social media in recent years can be seen as a major threat to the wellbeing of a society. Recent events, such as the outbreak of the COVID-19 pandemic or election campaigns in different countries, have demonstrated that conspiracy theories and false information spread rapidly on social media platforms and can undercut basic trust in democratic institutions (e.g. Jensen *et al.*, 2021; Mari *et al.*, 2021). The growing scholarly attention for the belief in conspiracy

theories has also raised questions about specific behavioral reasons why people would disseminate such problematic content. This is exactly what this study tries to answer, by exploring and identifying the reasons behind the willingness to spread misleading information that is related to conspiracy theories. Although the literature on conspiracy theories is growing rapidly, only few studies investigate *why* individuals engage with and spread conspiracy theories online. Part of the answer might be found in the literature on news sharing. Recent research on general online news sharing has shown that individuals spread news because they want to inform other users, express their point of views, or want to get an idea of other people's opinions (Chadwick and Vaccari, 2019; Thompson, Wang and Daya, 2019). More relevant for the following study, is the growing research on the dissemination of mis- and disinformation. Several studies have tried to explain why people engage with online misinformation (e.g. Chen et al., 2015; Van Bavel et al., 2021). As conspiracy theories can be understood as a specific form of disinformation, many of its driving forces might be applicable to this specific content as well.

Following the broader idea of the Uses and Gratifications Approach (Katz, Blumler and Gurevitch, 1974), we argue that people have very distinct reasons or personal motivations to interact with conspiracy theories. Based on this classical approach and more recent literature (e.g. Chadwick, Vaccari and O'Loughlin, 2018), we roughly differentiate between three types of motivations behind this social media behavior: (1) being convinced by the message, (2) entertainment reasons and (3) provoking reactions. The current study is, to our knowledge, one of the first to empirically and systematically compare three specific motivations that have previously been connected to sharing conspiracy theories online. However, these three motivations are by no means exhaustive, but can be seen as proxies for broader (online) behaviors that satisfy certain personal needs. For instance, being convinced by the message of a post can be connected to the individual desire to inform others and to

share relevant information (Apuke and Omar, 2021; Thompson, Wang and Daya, 2019), which eventually leads to the spread of the message. Individuals who want to provoke reactions on social media want to trigger interactions and discussions within their network, which can be associated with the socializing aspect (of misinformation sharing) on social media (Chen and Sin, 2013). Sharing conspiracy theories for fun further functions as a gratification. Individuals might spread false information to amuse themselves, experience emotional release, and anxiety relief, which is common social media sharing behavior (e.g. Lee and Ma, 2012; Kim, 2014; Thompson, Wang and Daya, 2019; Islam *et al.*, 2020).

In a next step, we aim to measure the influence of individual characteristics, such as personality traits and political orientation on these three types motivations, in order to understand whether different people engage with conspiracy theories out of different reasons. Identifying the motivations behind this problematic sharing behavior is an essential piece of the puzzle in combatting conspiracy theories on social media. We expect that the added individual factors will enable us to paint a more nuanced and comprehensive picture of why individuals would engage with conspiracy content on social media. Hence, we ask the following research questions:

RQ1: To what extent can the online dissemination of conspiracy theories on social media be explained by being convinced by the message, entertainment reasons or reaction provocation?

RQ2**:** Which individual factors determine the motivations behind online dissemination of conspiracy theories on social media?

This study relies on extensive survey data from six Western democracies (Belgium, France, Germany, Switzerland, the United Kingdom and the United States). We aim to answer the research questions by considering two issues that are highly salient and often related to existing conspiracy theories in all countries under study: immigration and COVID-19. Researching sharing behavior, we are aware that people often interact with conspiracy

theories on social media without reflecting about their behavior (Buchanan, 2020; Pennycook and Rand, 2019). Since we are mainly interested in *why* people interact with conspiracy theories these unconscious forms of sharing conspiracy theories fall outside the scope of our study. Subsequently, the strengths of the following study lie in investigating the understudied motivations behind the online dissemination of false information that can be linked to conspiracy theories circulating on social media and in testing different individual factors that can explain these motivations.

Motivations behind the Dissemination of Conspiracy Theories

A substantial amount of literature has discussed the definition of conspiracy theories (e.g. Keeley, 1999; Clarke, 2002; Sunstein and Vermeule, 2008). In this study, we adapt the definition of Keeley, which understands conspiracy theories as "a proposed explanation of some historical event (or events) in terms of the significant causal agency of a relatively small group of persons the conspirators acting in secret" (1999, p. 116). According to this definition, a group of people is trying to benefit politically or economically by acting in secret, harming the common people and violating certain rights (Uscinski, Klofstad and Atkinson, 2016). Individuals can be exposed to this kind of information explicitly by it being part of a (news) story, or more implicitly suggested by the use of certain words and images. It becomes apparent and is easy to imagine that these narratives can be connected to the broader concepts of dis- and misinformation (Wardle and Derakhshan, 2018). Conspiracy theories are oftentimes named together with 'fake news', rumors, and deliberately misleading stories as being specific forms of misinformation (e.g. Starbird, 2017; Halpern *et al.*, 2019; Van Bavel *et al.*, 2021). Therefore, we rely additionally on literature covering misinformation and disinformation when researching the potential motivations behind the dissemination of conspiracy theories. As we often do not know whether people are aware that the stories they

interact with are false or misleading stories, we use the term misinformation, instead of disinformation which suggests a clear intention to mislead people.

The underlying approach of our study is based on the classical Uses and Gratifications Theory (Katz, Blumler and Gurevitch, 1974). Scholars applying this approach, typically generate a list of functions that different media might have for satisfying a variety of citizens' needs (e.g. Katz, Haas and Gurevitch, 1973). This mass communication work strongly contributed to a shift in thinking about media effects from "what the media do to people" to "what the people do with media". Such a functional approach turned out to be a fruitful way to study the motivations behind the use of 'new' media, that are often more personalized in comparison to the 'old' media (Ruggiero, 2000). In recent years this theory also turned out to be appropriate to study the sharing of false and misleading information (Chen et al. 2015), including conspiracy theories (Apuke and Omar, 2020; Balakrishnan, Ng and Rahim, 2021).

We argue that at least three broad motivations in particular capture diverse rationales why individuals would engage with conspiracy theories online. A first gratification or need might be related to *conviction,* being able to show agreement with what you see online and to share these views or moral stances with others (Leiner *et al.*, 2018). Spreading conspiracy theories because users are convinced by the conspiracy content can be connected to attitudinal congruence where the claim of a conspiracy theory matches the preexisting attitudes of an individual (e.g. Hameleers *et al.*, 2021). Second, the very common need for *entertainment* has also been proven to be a valid predictor for why individuals engage with conspiracy theories or misinformation (e.g. Apuke and Omar, 2020; Islam et al., 2020). Individuals who strive for entertainment rather than informing themselves, are more prone to disregard checking the information for its truthfulness. Third, *provoking* reactions on social media as a main motivation to spread false information can be linked to the socialization gratification within the theory, where social media users desire to have conversations with other users and expand

their network (Apuke and Omar, 2020). In the section below, we will explore each type of motivation in more detail.

Conviction. First, people might interact with conspiracy theories out of conviction. Drawing on the literature on attitudinal congruent misinformation dissemination, individuals actively or unconsciously tend to select content that is in line with their existing views and avoid incongruent information to reduce cognitive dissonance (Hameleers, 2019; Hopp, Ferrucci and Vargo, 2020). In general, this belief-based content selection on social media results in individuals mainly disseminating attitude-congruent social media posts. Even if people are not sure whether the information is true or partly true, they might uncritically decide to share it to support the views of their in-group or community (Van Bavel and Pereira, 2018; Clemm von Hohenberg, 2019). Thus, accuracy seems to be much less important and this can lead to the deliberate sharing of false information because individuals care more about the content being ideologically consistent with them (Pennycook *et al.*, 2021). We believe that these findings can be adopted by the research on motivations behind conspiracy theory sharing on social media. If individuals are convinced by or agree with the message of a conspiracy social media post, they are in consequence more likely to support and spread this messages by liking, sharing or commenting on it. Hence, message agreement and personal relevance can be seen as a central motivation for why people engage with conspiracy theories on social media. We suspect that this is especially the case for liking and sharing. These two reactions can be seen as rather endorsing behavior. Liking is mostly linked to a quick emotional reaction towards a post, which requires little effort and sharing a post is can be connected to sharing one's believes and general self-presentation (Kim and Yang, 2017). Commenting on the other hand, is described as 'composed communication' (Burke and Kraut, 2016, p. 266), which demands more effort of users and can not only have an endorsing but also a criticizing purpose.

Entertainment. Second, engaging with conspiracy theories might be considered as a 'fun' thing to do. Social media has been described as a "hedonic information system" (Islam *et al.*, 2020, p. 4), where pleasure such as, fun and entertainment explains some of the social media use. Against this backdrop, we claim that perceived entertainment plays a central role why individuals would disseminate conspiracy theories. Individuals do not only experience conspiracy theories as potentially harmful or misleading, but can also perceive them as funny and entertaining (Daniel and Harper, 2020; van Prooijen *et al.*, 2021). Van Prooijen et al. (2021) observed that the triggered entertainment value through conspiracy theories fosters the belief in them. People experience conspiracy theories as fascinating and exciting. Thus, they can spark intense (positive) emotions, which can predict the belief in and the appeal of conspiracy theories (van Prooijen *et al.*, 2021). Literature on misinformation sharing further suggests that perceived entertainment increases the likeliness to disseminate the false and misleading information (Islam *et al.*, 2020; Metzger *et al.*, 2021). Individuals who seek entertainment on social media platforms might not be bothered with the accuracy and authenticity of a post and therefore disseminate unverified information (Islam *et al.*, 2020). Following these results, we assume that social media users might therefore disseminate conspiracy theories for fun, even when people do not fully agree with them.

Reaction provocation. Third and last, we consider reaction provocation on social media as a third possible reason for the dissemination of conspiracy theories. Social media use is considered to be highly gratifying (van Koningsbruggen *et al.*, 2017). Individuals post on social media to stimulate conversations and to get opinions from others (Zivnuska *et al.*, 2019). Liking, sharing and commenting on social media posts can be seen as one way to satisfy these needs, for example, to get attention and reactions from others, and start conversations within the network. On a content level, research suggests that information that reinforced COVID-19 conspiracy theories has been proven to get more reactions and be more

viral than neutral or debunking content (Papakyriakopoulos, Medina Serrano and Hegelich, 2020). Zhang et al. (2021) found similar results observing that conspiracy theories are more viral than scientific information and have a longer lifetime on social media. In addition, more users are involved with conspiracy theories online and they proliferated more than scientific content (Zhang *et al.*, 2021). In general, conspiracy content generates more likes and shares (Bessi *et al.*, 2015), indicating that this kind of content is attractive to spread for social media users that want to engage with other users. Thus, we argue that a third reason for why conspiracy theories achieve such high engagement on social media is that individuals wish to provoke reactions and gain attention.

Individual Factors

In sum, we suggest that people interact with conspiracy content because of three types of motivations. These different reasons are not mutually exclusive, but some motivations might be more relevant for certain groups or types of people in society. Therefore, we argue that the three types of motivations to disseminate conspiracy theories online can be linked to a number of individual features and attitudes. This argument is in line with previous research where endorsement for conspiracy theories has been attributed to individual characteristics (van Mulukom *et al.*, 2020). Against this background, we further aim to find out which individual factors can explain why some people share conspiracy theories out of political convictions, whereas others just do it for fun or to provoke reactions.

Based on a previous meta-analysis (Goreis and Voracek, 2019), we divide the individual predictors into two sets (see Figure I). Goreis and Voracek identified a strand of research that links social and political variables to the belief in conspiracy theories. We therefore expect that political orientation, political interest, and attitudes towards the issue will mostly influence the motivation to disseminate conspiracy theories out of conviction. The authors (Goreis and Voracek, 2019) further found in their systematic literature review that a

number of existing studies connect the belief in conspiracy theories to certain personality traits, that can be linked to psychological disorders (e.g. schizotypy). Thus, the second set anticipates that psychological factors such as dark personality traits and the need for drama have an impact on the motivations to spread false and misleading content out of entertainment reasons or to provoke reactions on social media. In a next step, we elaborate on the individual factors in connection with the specific motivations in more detail.

[FIGURE 1 ABOUT HERE]

Political factors

Literature on conspiracy endorsement and the belief in conspiracy theories sheds light on the role of political orientation. According to Miller et al. (2016), liberals endorsed conspiracy theories that discredit conservatives and the other way round. Similarly, Min (2021) finds that white men who score high on conservatism are more likely to endorse conservative conspiracy theories. In line with these results, van Prooijen et al. (2015) observed that individuals with extreme political ideologies, were more likely to belief in conspiracy theories. Furthermore, political extremism has been connected to a higher susceptibility to conspiracy beliefs (van Prooijen, Krouwel and Pollet, 2015). Other results suggest that conservatives were more likely to disseminate conspiracy theories than liberals (Mahl, Zeng and Schäfer, 2021). Covering the COVID-19 pandemic, Romer and Jamieson (2020, p. 7) observed that conspiracy beliefs regarding the pandemic were mostly held by individuals with a conservative ideology or by “disadvantaged racial-ethnic groups”. These results suggest that people with more conservative, radical or outspoken political ideas are more eager to interact with this type of content and that political orientation is an important predictor to engage with and share conspiracy theories online out of conviction.

Next to political orientation, political interest may also play an important role in explaining the sharing of conspiracy theories based on the conviction about the information. Conservative individuals who discuss politics frequently were stronger associated with the belief in conspiracy theories than individuals who discuss politics less frequently (Min, 2021). Ahmed (2021) linked higher political interest to sharing deepfakes more often, which means that the spread of false information is more likely to be ascribed to politically interested social media users. In line with this, Chadwick and Vaccari (2019) found that people who purposely spread misleading content were more interested in politics.

Closely related to political orientation, and a potential driver of spreading conspiracy theories out of conviction is attitudinal congruence. The concept of attitudinal congruence dates back to the beginning of cognitive consistency theories and is related to confirmation bias (Festinger, 1957). People actively or unintentionally tend to choose content that is in line with their existing beliefs and avoid uncongenial information to decrease cognitive dissonance (Iyengar and Hahn, 2009; Hameleers, 2019). Broadly speaking, this belief-based content selection on social media results in individuals mainly interacting with attitude-congruent social media posts. Even if people are insecure whether the information is true or partly true, they might uncritically decide to disseminate it to promote the views of their in-group (Van Bavel and Pereira, 2018; Clemm von Hohenberg, 2019; Hameleers, 2019). Literature on misinformation indicates that it is increasingly disseminated within social networks if the message is in line with people's preexisting attitudes towards the issue (Buchanan, 2020). For instance, literature on conspiracy theories surrounding the coronavirus suggests that the belief in them is connected to negative attitudes towards vaccinations (van Mulukom *et al.*, 2020). The more congruent individual's preexisting attitudes are with false information on the coronavirus, the more likely people are to perceive this false information as credible and agree with it (Hameleers *et al.*, 2021).

Following these findings, we assume that political orientation, political interest, and attitudinal congruence can explain why individuals would engage with conspiracy theories out of conviction. We refer to political orientation, political interest and issue attitudes as 'political factors' and will use this operationalization throughout this study. Thus, the following hypothesis is examined:

H1: The individual online dissemination of conspiracy theories out of conviction can be explained by political factors.

Personality Traits

Very recently, scholars begun to study the influence of certain personality traits on propagating conspiracy theories online (e.g. March and Springer, 2019; Sternisko *et al.*, 2020; Hughes and Machan, 2021). In their systematic literature review, Goreis and Voracek (2019) reported that paranormal belief, narcissism, and desirability of control have all been linked to the belief in conspiracy theories. It is important to understand what role aversive personality traits play in connection to the motivations behind the dissemination of conspiracy theories. We are particularly interested in the so-called Dark Triad of personality traits (i.e. psychopathy, narcissism, and Machiavellianism), since it has been identified as a factor that explains why people would spread COVID-19 conspiracy theories (Hughes and Machan, 2021). The Dark Triad consists of three elements: psychopathy, narcissism, and Machiavellianism. Psychopathy describes personalities with a lack of remorse, empathy, and anxiety as well as thrill-seeking behavior. It comprises two main elements: deficits in affect and self-control. Narcissism is defined by feelings of grandiosity, dominance, and superiority. The driver behind narcissistic behavior is ego-reinforcement, whereas psychopathy and Machiavellianism are motivated by instrumental gain. Machiavellianism consists of the tendency to manipulate other people in a strategic and calculating manner. The impulsivity

associated with psychopathy is central in distinguishing it from Machiavellianism. Machiavellians are, in contrast to psychopaths, concerned about their reputation and tend to plan ahead (Paulhus and Williams, 2002; Jones and Paulhus, 2014). Machiavellians and individuals with narcissistic personality traits have been observed to be less skeptical of conspiracy theories on COVID-19 and by disseminating conspiracy theories on social media, narcissists obtain the attention they strive for (Ahadzadeh, Ong and Wu, 2021). Thus, provoking reactions online. Tang, Reer and Quandt (2022) found that the Dark Triad is linked to what the authors call 'social media disorder' – the disordered (addictive) use of social media ('social media disorder', SMD) and its harms on physical and psychological health (p.1). This relationship is mediated by the motivation to entertain oneself.

Another concept closely related to the Dark Triad is the need for drama. It contains elements of interpersonal manipulation, impulsive outspokenness and persistent perceived victimhood (Lerma *et al.*, 2021, p. 3). Additionally, the concept has been connected to intense social media use (Lerma *et al.*, 2021). Following these premises, we expect that the need for drama can be seen as another explanatory factor for the motivations why individuals would disseminate conspiracy theories for fun or to gain reactions on social media.

Dark personality traits and the need for drama can therefore contribute to the understanding of why individuals would disseminate conspiracy theories for fun or to provoke reactions on social media. We understand dark personality traits and the need for drama as 'psychological factors'. Against this background, the study tests the following hypothesis:
H2: The individual online dissemination of conspiracy theories out of entertainment and to provoke reactions can be explained by psychological factors.

Control Variables

Because conspiracy theories spread relentlessly through social media, it is crucial to take users' general social media activity as a control variable into account when investigating

their motivations behind the dissemination of conspiracy theories. When it comes to individual social media use, previous research has postulated significant correlations between the social media use (e.g., in terms of liking, sharing, and commenting on news) and the belief in conspiracy theories (e.g. Hall Jamieson and Albarracín, 2020; Romer and Jamieson, 2020; Enders *et al.*, 2021). We also assume that (dis)trust influences the dissemination of conspiracy theories online. Conspiracy theories have been observed to undermine the trust in governmental institutions, especially in connection to terrorism and governmental counter strategies (Bartlett and Miller, 2010). Similar findings from Mari et al. (2021) showed that conspiracy beliefs triggered distrust against governmental institutions. The authors further argue that this general distrust can fuel the creation of new conspiracy theories. Bruder and Kunert (2021) found that trust in media was negatively correlated with the belief in conspiracy theories.

Method

Design. We conducted representative surveys in six Western democracies (Switzerland, Belgium, France, Germany, the United Kingdom and the United States[1]) to investigate the motivations behind the dissemination of conspiracy theories related to two issues: immigration and COVID-19. We argue that these topics are suitable for the study of conspiracy theories, because they have been investigated in previous studies in connection with conspiracies (Uscinski and Olivella, 2017; Marchlewska, Cichocka and Kossowska, 2018; Papakyriakopoulos, Medina Serrano and Hegelich, 2020) and are highly polarized.

Procedure. The polling company Respondi recruited representative samples of social media users in all six countries based on country-specific census data (see Appendix A). The

[1] The data used in this study are connected to a large-scale research project. The countries were selected to test different contextual factors that create opportunity structures for the dissemination of online misinformation. The following study does not focus on these factors or on specific country differences, rather, we aimed to find generic factors that matter across (Western) countries.

specific quotas on age, gender and education were provided by the polling company. In other words, Respondi recruited until all quotas were full and participants were not accepted if their quotas were already complete. Because we are interested in the motivations behind the dissemination of conspiracy theories on social media, the sample only consisted of social media users (usage of at least once a month). The data was collected over four weeks in April and May 2020, and the respondents were given an incentive by the polling company. The surveys were presented in the corresponding language of the (majority of the) country (in Dutch for Belgium and in German for Switzerland). After expressing their informed consent, participants completed the first section of the survey, which included standard demographics and news consumption. In a second step, each participant was exposed to two fictional social media posts containing conspiracy claims about immigration and COVID-19 (see Appendix B). The claims contained blame attributions and institutional skepticism. After being exposed to the posts, the participants were forwarded to the second part of the survey, which included measures for the dependent variable.

Sample. After removing straightliners and other outliers based on quality fail questions and response time, we collected a sample of 7,009 respondents (quotas for age: $M = 43.87$, $SD = 14.69$; gender: female = 51.7%, male = 48.3%, education: lower = 27.7%, moderate = 40.1%, higher = 32.1%).

Dependent Variables and Vignettes. All of the respondents were shown two social media posts, one for each issue in a random order. The created vignettes resembled news items posted on Facebook by a fictional news outlet (news.com). To enhance the study's external validity, we used statements that had prior circulated on social media and were discussed on various fact-checking websites from the six countries under study. We adjusted them to match the purpose of this study. The claim regarding immigration reads as follows: "The news media withholds information about dangerous immigrants – Well known national

news media often deliberately don't report about crimes of illegal immigrants against innocent citizens". This claim mainly follows the narrative of the of the Great Replacement conspiracy theory (Cosentino, 2020; Obaidi et al., 2021). The term was coined by Renaud Camus, a disputed French philosopher. This white nationalist conspiracy theory states that the European identity and civilization is in danger because (Muslim) immigrants are plotting against the West, to eventually taking it over in a hostile manner (Bergmann, 2021). We argue that the fabricated post of this study can be connected to this conspiracy theory. In the sense that criminal non-European or non-Western immigrants might be plotting against Western countries, taking them over, and that the corrupt mass media are in cahoots with the masses of immigrants, by covering this fact up.

The COVID-19 post had the following statement: "The coronavirus might be a bioweapon from China – Report claims the Chinese government intended to use COVID-19 to damage the economy of other countries". This message not only calls out the Chinese government for being mainly responsible for the global pandemic, but also suggests that the virus was spread on purpose to harm other countries. Blame attribution and secretive plotting are common features of actual conspiracy theories that can be found on social media (Uscinski, Klofstad and Atkinson, 2016; AFP *et al.*, 2020).

The participants were told a cover story at the start of the survey stating that the aim of this study was to measure their opinions on different social media posts, political issues, and actors as well as their social media use. Before they were presented with the fabricated posts, participants were told to envision that the following posts would appear on their newsfeed and to read them attentively.

After reading each vignette they were asked how likely it is that they would a) like the post, b) comment on the post, and c) share the post on a 7-point scale (1= very unlikely, 7= very likely). Each time respondents scored a 4 or higher, they were subsequently asked about

their motivation behind that specific form of engagement with that specific conspiracy theory (e.g. liking the immigration post, sharing the COVID-19 post, etc.). These motivations to engage with the social media posts were measured with four items, all on a 7-point Likert scale (1 = completely disagree, 7 = completely agree). They were asked the following items to tap into the motivation to engage (in a specific way) with the post: "I want to signal that I agree with the content of the post", "I want to provoke reactions", "For the giggles: I want to entertain others and like it for fun" [2]. Since we asked for the motivations for every type of reaction (like, comment, share) to every post we needed to limit the number of motivations. We selected these three specific options, relying heavily on a previous study on individuals' motivation to share news and misinformation online (Chadwick, Vaccari and O'Loughlin, 2018). The authors studied seven motivations which were grouped into three clear motivational clusters: (1) persuading/informing; (2) debating; (3) entertaining/trolling. Persuading/informing was measured through two items (to inform others & to influence others). Debating was measured with two items (to find out other people's opinions & to provoke discussions) and the motivation entertainment was captured through three items (to entertain others; to please others & to upset others). In this study, we chose to take one adapted item for each motivation. Figure II displays the mean distribution per reaction and issue, whereas Appendix C provides detailed tables of the mean distribution per reaction, issue, and country.

Independent Variables

Personality Traits. Based on the literature on the Dark Triad of personality traits (see e.g., Jonason and Webster, 2010; Jones and Paulhus, 2014; Paulhus and Williams, 2002), we

[2] In the survey included is a fourth motivation stating; "I want to signal that I disagree with the content of the post". However, in this study we specifically focus on motivations behind conspiracy theory sharing, which endorse the spread of them on social media. For the sake of the framing of this study, we therefore excluded this motivation from the multilevel analysis (Table 2). By indicating disagreement, individuals may try to correct the conspiracy theory or warn others about the misleading message.

rely on its three components: psychopathy, narcissism, and Machiavellianism. The components were measured on 7-point Likert scales, based on the studies by Jonason and Webster (2010) and Jones and Paulhus (2014). Narcissism was measured through four statements (e.g., “I tend to want others to admire me” and “I tend to want others to pay attention to me”), Cronbach’s α = .88, M = 2.96, SD = 1.55. Psychopathy was measured with three items (e.g., “I tend to lack remorse” and “I tend to be callous or insensitive”), Cronbach’s α = .67, M = 2.89, SD = 1.39. The Machiavellianism scale consisted of four items (e.g., “Make sure your plans benefit you, not others” and “Most people can be manipulated”), Cronbach’s α = .68, M = 3.70, SD = 1.32. The complete scales are in Appendix D.

Need for Drama. Based on literature on the concept of need for drama (Frankowski *et al.*, 2016), we measured the concept through three items (“Sometimes it's fun to get people riled up”, “I say or do things just to see how others react” and “It's hard for me to hold back my opinion”), Cronbach’s α = .67, M = 3.05, SD = 1.38.

Political Orientation. The participants had to indicate where they would place themselves on an 11-point ideological scale (0 = extreme left, 10 = extreme right), M = 6.04, SD = 2.46.

Political Interest. Political interest was measured on a 7-point scale (1 = not interested at all, 7 = extremely interested). Participants were asked how, generally speaking, interested they are in politics, M = 4.21, SD = 1.87.

Attitudinal Congruence. Attitudinal congruence was measured through agreement with statements about the three issues. For immigration we worked with existing Likert items that are often used in survey research (see Appendix E) and built a mean index (immigration, Cronbach’s α = .81). For COVID-19 we used one statement stating that the weak response of the Chinese authorities has caused the coronavirus to become a worldwide pandemic. The respondents had to indicate on a 7-point scale (1 = strongly disagree, 7 = strongly agree) if

they agreed with the statement shown (immigration: M = 4.32, SD = 1.50; COVID-19: M = 5.29, SD = 1.70).

Social Media Variables. To measure social media use, we asked the respondents how frequently they used Twitter, Facebook or Instagram for reasons like entertainment, work, or information seeking on a 5-point scale (1= *never*, 2 = *less often*, 3 = *monthly*, 4 = *weekly*, 5 = *daily*), *M* = 2.73, *SD* = 2.33. Furthermore, we tested for general social media activity. The participants were asked how often they responded to personal posts of friends or family members via likes, shares or comments and how often they engage with political and societal news (1 = *never*, 7 = *very often*), Cronbach's α = .75, *M* = 3.38, *SD* = 1.56.

Trust Variables. To measure the perceived trust in news, we asked participants to indicate if they thought they could trust the news most of the time (1 = strongly disagree, 7 = strongly agree), M = 4.23, SD = 1.53. The same question was asked to assess the trust in news on social media (1 = strongly disagree, 7 = strongly agree), M = 3.20, SD = 1.57. Last, we measured the trust in the government by asking the participants how much they trust politicians in government (1 = strongly disagree, 7 = strongly agree), M = 3.40, SD = 1.69. The means of all independent variables across the six countries can be found in Appendix F and the correlations between all relevant variables are displayed in Appendix G.

Analyses. To answer the question which individual motivations are behind the dissemination of conspiracy theories on social media, we first explore descriptively how many individuals were willing to disseminate the posts and based on which motivations. In a second step, we then explore which individual factors are connected to each motivation. Within this second step the units of analysis are specific forms of engagement by a respondent (i.e. liking, sharing, and/or commenting) for a certain conspiracy theory (level 1), which are then nested within respondent-issue combinations (level 2), and ultimately respondents (level 3). This means that a respondent can be included in the nested dataset, one – if she indicated to only

engage in one way with one of the posts – to maximum six times – if she indicate to like, share *and* comment on both posts. An example of the data structure can be found in Appendix H. Our main dependent variables, the three motivation Likert scales are all situated at the first level. The variable measuring attitudinal congruence is situated at the second respondent-issue level, whereas the stable features of respondents (political orientation, political interest, the psychological factors and the controls) are all situated at the, third, respondent level. To account for the nested data structure with three levels we use multilevel regressions with random effects. In addition, fixed effects are added to account for the further nesting in the two issues (the reference category is the immigration conspiracy theory), and the three types of engagement (the reference category is liking).

Results

In our sample, between 15% and 38% of the social media users in a specific country indicated that they would interact with the presented conspiracy post. Table 1 shows that, across countries, the post that contained the claim regarding the coronavirus led to a slightly higher willingness to engage with it, than the post related to immigration (COVID-19: n = 1,947, immigration: n = 1,559). If we filter out the social media users that indicated that they would interact with the conspiracy post to signal disagreement, we still have between 10% and 25% of participants who would interact with these conspiracy theories.

Swiss citizens were the least likely to interact with the posts, followed by citizens from Germany and the United Kingdom. Participants in Belgium, France and in particular the United States were the most likely to disseminate the conspiracy theories. In the further analysis, we did not focus on the national differences but added country dummies as controls. They largely mirror the variation in Table 1, with United States citizens being significantly more, and German and Swiss citizens being less willing to engage with the posts.

[TABLE 1 ABOUT HERE]

In Figure II we separated the data into two groups along the two conspiracy theories under study. On a seven-point scale it shows the means of which motivation to engage with the conspiracy content is the most common and which social media reaction was most frequently indicated per different motivation. Overall, we see that, across issues and type of reactions, agreement with the message of the post was the most important reason for disseminating it (immigration: M_{like} = 5.50, M_{share} = 5.22, $M_{comment}$ = 4.65; COVID-19: M_{like} = 5.18, M_{share} = 4.98, $M_{comment}$ = 4.29). The second most common motivation to disseminate the different posts was to provoke reactions on social media (immigration: M_{like} = 4.31, M_{share} = 4.49, $M_{comment}$ = 4.39; COVID-19: M_{like} = 4.20, M_{share} = 4.40, $M_{comment}$ = 4.37). Entertainment was the least indicated motivation for engaging with the conspiracy theories (immigration: M_{like} = 2.91, M_{share} = 2.82, $M_{comment}$ = 2.81; COVID-19: M_{like} = 3.03, M_{share} = 2.96, $M_{comment}$ = 2.79). This pattern is rather similar for the two conspiracy posts under study. The main difference is that for the post on COVID-19 the difference between three motivations is smaller, indicating that it was relatively more likely to be disseminated for fun. In terms of reactions, we see few differences in liking, sharing and commenting. For both issues, commenting is relatively less done out of conviction, compared to sharing and liking. Overall, the results suggest a pattern where the same motivations to engage with conspiracy theories online dominate across issues and the majority of social media reactions.

[FIGURE II ABOUT HERE]

In a next step, we aim to detect which individual factors influence the motivations behind the willingness to disseminate conspiracy theories online. In model 1 of Table 2 we first of all observe, in line with Figure 2, that the COVID-19 post was less likely to be disseminated out of conviction (B = -.15, SE = .05, $p < .01$), and more related to entertainment

(model 2) than the immigration issue (B = .20 SE = .03, p < .01). Looking at the different types of reactions, the results indicate that liking, compared to commenting (model 1: comment: B = -.16, SE = .03, p < .01), is the form of engagement that is mostly motivated by conviction about the conspiracy theory and by entertainment. For sharing we could not find any significant differences between the different motivations in comparison to liking.[3][4]

Next, we turn to our main hypotheses. We expected that political factors can be more associated with the dissemination of conspiracy theories out of conviction (H1) and that psychological factors can be more linked to the online dissemination out of entertainment reasons or to provoke reactions on social media (H2). In general, focusing on the influence of the political factors, we observe that having an attitude that is congruent with the post plays a central role for the motivation to engage with conspiracy theories out of conviction. Congruence with the issue of the post does, however, not matter for entertainment reasons. If we look at provoking reactions, we also see a significant effect of attitudinal congruence. However, this effect is much weaker compared to its effect on conviction (conviction: B = .17, SE = .02, p < .01, provoking: B = .05, SE = .02, p < .01).

If we next look at political orientation we find that it is a significant predictor for both the motivation conviction and entertainment. Especially right-leaning individuals are more likely to engage with conspiracy theories out of conviction and entertainment. However, again, this effect is much stronger for the motivation to spread the messages out of conviction or agreement (conviction: B = .16, SE = .01, p < .01, entertainment: B = .03, SE = .02, p < .05). Thirdly, political interest is mostly a significant negative predictor regarding the entertainment motivation. In sum, we conclude that the political factors are mostly and more

[3] Note that if we change the reference category to sharing, we find similar significant differences between sharing and commenting, with commenting being less done out of conviction and entertainment than liking.
[4] This is further supported by the fact that the correlations between the motivations for liking and sharing are quite high (above .76). This suggests that future studies could combine these two types of reactions in one single question.

strongly linked to the motivation of being convinced by the conspiracy theory, but that they do influence the motivations of provoking reactions and entertainment to a limited extent. Therefore, hypothesis 1 can only be partly confirmed.

Zeroing in on the second set of individual predictors, the psychological traits, we find that individuals with psychopathic traits more often indicate that they would disseminate the posts based on all three motivations. Nevertheless, it has a much stronger effect on the entertainment motivation (psychopathy: $B = .32$, $SE = .03$, $p < .01$) and a much more moderate effect on the conviction and provoke motivation. If we look at narcissism we see a more or less similar pattern. This trait especially has an influence on the entertainment motivation and a more moderate influence on the provoke motivation. As expected, narcissism is not behind the conviction motivation. A Dark Triad trait that does have a strong influence on the conviction motivation, however, is Machiavellianism ($B = .15$, $SE = .04$, $p < .01$). Finally, as expected, we find that individuals with a higher need for drama are more likely to engage with the conspiracy theories out of entertainment reasons and to provoke reactions (entertainment: $B = .13$, $SE = .03$, $p < .01$; provoking reactions: $B = .31$, $SE = .03$, $p < .01$). The need for drama is not related to sharing a post out of conviction. Thus, although most, but not all results are in line with our expectations, we can partly accept the second hypothesis.

Our control variables furthermore show that older individuals are generally more likely to disseminate the conspiracy posts because they agree with the message, whereas younger and male individuals are most likely to disseminate posts for entertainment reasons. Older and male participants are generally also more prone to like the posts for reasons of provoking reactions on social media reasons. If we look at social media activity, we find that more active social media users are more likely to engage with the conspiracy theories out of entertainment reasons and to provoke reactions, as do those who have a higher trust in social

media, although for this group also conviction is an important motivation. Trust in traditional news on the other hand does not help to differentiate between the different motivations.

[TABLE 2 ABOUT HERE]

Discussion

Despite the fact that research on the belief in conspiracy theories is growing, little is known about what motivates people to disseminate this type of content on social media. The present study sought to understand the motivations behind the dissemination of conspiracy theories online and whether these motivation can be related to certain individual factors such as personality traits and political orientation.

Our analysis found that being convinced by or agreeing with the message was the primary motivation for disseminating conspiracy theories online. This is in line with previous studies on selective sharing (Johnson *et al.*, 2020), suggesting that existing attitudes on a polarizing issue such as immigration are particularly important to explain why people engage with misinformation on immigrants, and potentially start believing the broader conspiracy theory that immigrants are here to 'replace' us. Given the results of the surveys, we identified provoking reactions as the second most indicated motivation to engage with false and misleading content. Individuals were willing to like, share or comment on conspiracy posts in order to trigger reactions and gain attention within their social media network. Entertainment played a less prominent role on average, but was still mentioned by a significant group of people when it comes to the motivations behind the spread of conspiracy content. Thus, the three selected motivations can, to some extent, explain what drives people to engage with conspiracy theories on social media.

By considering two sets of individual factors, relevant differences between the three selected motivations came to light. Since we were interested in individuals who would engage

with conspiracy theories, we filtered the sample accordingly to determine which characteristics match these individuals. First of all, we expected political attitudes to be strongly related to engaging with conspiracy theories out of conviction. This turned out to be largely the case. Attitudinal congruence with the issue of the post mattered clearly more for disseminating conspiracy theories based on conviction than for the other two motivations. In addition, right-leaning individuals were also more likely to engage with conspiracy content out of agreement. Finally, the more politically interested people were, the less was entertainment driving this type of behavior. In sum, more political outspoken and interested people are mainly engaging with conspiracy theories because they believe that the message has to be told. We believe this adds to previous studies, which postulated that political orientation is a strong predictor for disseminating misinformation. (e.g. Chadwick and Vaccari, 2019; Guess, Nagler and Tucker, 2019).

Our second main expectation, was that psychological factors help to explain the motivations to disseminate conspiracy theories based on perceived entertainment and reaction provocation. Here our findings paint a more mixed image. We do show that narcissism and the need for drama are of great importance in the context of conspiracy sharing out of entertainment and provoking reactions. Individuals with narcissistic traits might be more willing to disseminate conspiracy theories to be in the spotlight and get recognition. This result is in line with previous research, where narcissistic individuals were found to share conspiracy theories to gain wanted attention online (Ahadzadeh, Ong and Wu, 2021). Individuals who show stronger manifestations of psychopathy are more prone to disseminate the conspiracy theories out of all three reasons but the effect is the most outspoken for entertainment reasons. For Machiavellianism, however, the effect goes in the opposite direction as this trait was mostly related to agreement and conviction. To some extent this

makes sense, as those who score higher on this trait may be more inclined to share congruent posts out of instrumental and strategic (political) reasons to influence others.

Hypotheses 1 and 2 postulated relationships between political and psychological factors and the individual motivations to disseminate conspiracy theories online. The results largely confirm the hypotheses. Political orientation and congruent attitudes towards the issue influenced the motivation to disseminate conspiracy theories out of conviction or message agreement. Whereas psychological factors such psychopathy, narcissism and the need for drama are more related to the motivations to spread false and misleading content out of fun or to provoke reactions on social media. At the same time our results are less clear cut than our hypotheses suggested. The two set of factors have some influence on all three motivations. This is not surprising as our motivations are not mutually exclusive, and often co-determine the online dissemination of conspiracy theories.

An additional takeaway of this study manifests itself in the observed similarities between the motivations to engage with conspiracy theories and with misinformation. We did not find exceptional motivation patterns that are unique to disseminating conspiracy theories. We rather find similar mechanisms behind sharing misinformation and messages related to conspiracy theories. Nevertheless, we are aware that this might be the case because our design was limited to three non-exhaustive motivations on only two conspiracy theories and thus, were not able to adopt a more nuanced lens. We urge future research to test more diverse motivations directly connected to the Uses and Gratification Approach (e.g. spreading content to inform others or experience emotional release) and apply them separately to conspiracy theories and specific forms of misinformation. Doing so, enables to get a better idea whether conspiracy theories should be considered as ‘exceptional’ or not, when it comes to sharing false or misleading information.

The findings of this study should be considered in the context of several limitations. As a first key limitation, we selected three motivations and disregarded other possible reasons for the dissemination of conspiracy theories online. Especially, qualitative studies could advance and deepen the research of different motivations behind this behavior. In this study, we also focused on political and psychological variables, but of course many more factors can be of importance. For instance our control variables, suggest that age and gender are very relevant factors when trying to explain why people engage with conspiracy theories.

Second, we asked the respondents after they indicated that they would engage with the conspiracy posts about their motivations to do so. This raises the concern that individuals rationalize their decision ex-post. Nevertheless, we argue that ex-post rationalization is unlikely to singularly drive our results. The fact that we find individuals who indicated that they would engage with conspiracy related messages also just for fun or to provoke reactions, proofs that individuals are also willing to present themselves as 'trolls' or attention-seeking and not only as reasoned individuals. However, we do admit that the sharing of false information is not necessarily a conscious process, but can also be seen as a rather automatic or spontaneous one (Buchanan, 2020) that requires little cognitive effort (Pennycook and Rand, 2019). However, our study focused on the individual conscious willingness to spread conspiracy theories online. By first asking respondents whether they would interact with these posts, and next why, this study comes closer to understanding the deliberate dissemination of conspiracy theories, rather than the fast and unconscious sharing, which would require a different methodological approach.

Third, we used a non-existent news outlet as the source of the conspiracy posts to keep the conditions consistent in each country. However, by doing so we disregarded the potential important effect of trustworthy or doubtful sources. To avoid this, a variety of country specific news outlets should be considered in future studies. Finally, since we presented

respondents with multiple issues we did not ask for every claim whether they believed it, to avoid priming respondents about the false or conspiracy nature of the message (Klar, Leeper and Robison, 2020). However, we acknowledge that the belief in conspiracy theories is a valid predictor for researching the motivations behind the dissemination of conspiracy theories online. Therefore, future research which focuses on single issues should delve deeper into the importance of the perceived truthfulness or accuracy of a message.

Fourth and finally, our results show that the tested motivations hold for individuals across different Western countries with different contexts. Nevertheless, we did not delve deeper into the differences between these countries and how our dependent variable may be influenced by factors such as a country-specific belief system, information environment or political system. We encourage future studies to take a more explicit comparative design with a larger sample of countries into account and to look into these factors as well.

Yet, despite these limitations, we contributed to a better understanding of why certain people interact with conspiracy theories online. These findings not only have implications for scholars but also for policy makers. Our study suggests that different policy responses or efforts are needed to combat the spread of conspiracy theories among different groups, as they do not always have the same motivation behind sharing the post. While some people need to be persuaded that a certain conspiracy theory is incorrect, this approach might be unsuccessful among people that believe that engaging with this misleading content is simply funny or a good way to get attention in their personal network. Finally, our study shows that the fight against conspiracy theories needs to be adjusted to the specific topic of the conspiracy. For instance, people might like posts about immigration because they are really convinced that the media hides stories about violent immigrants, but share a story about COVID-19 as a bioweapon of the Chinese government much more to provoke reactions. The ongoing global COVID-19 pandemic will likely keep fostering the growth of conspiracy theories on social

media. With our research, we hope to have contributed to a more inclusive understanding of the motivations behind the dissemination of conspiracy theories to be able to mitigate and combat the spread in the future.

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Figures

Figure I. Factors influencing the dissemination of conspiracy theories on social media

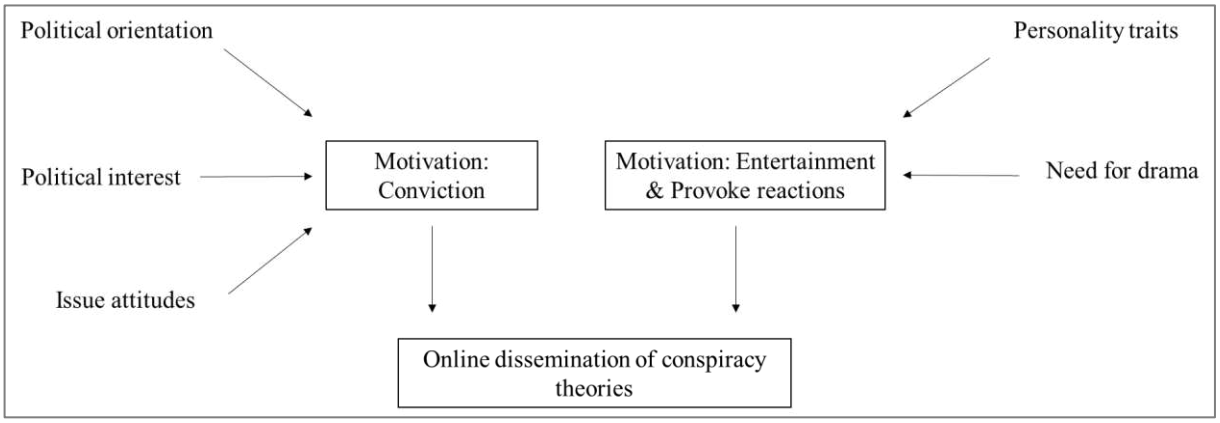
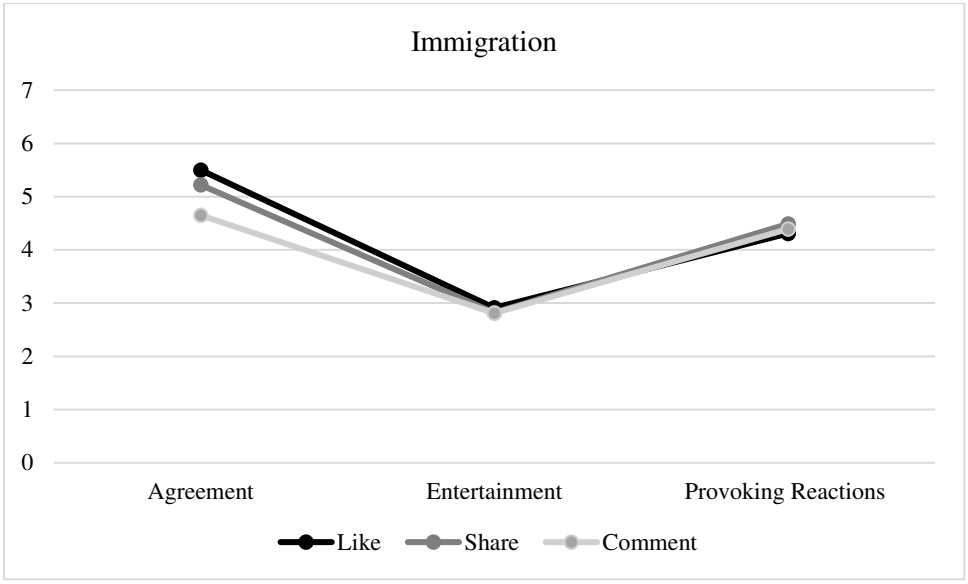


Table 1. Distributions of people who indicated they would interact with the social media post in percentages

	Immigration	Respondents (*n*)	COVID-19	Respondents (*n*)
BE	25.4%	270	27.9%	297
CH	15.3%	191	18.7%	234
DE	24.7%	251	25.3%	258
UK	18.3%	253	25.6%	353
FR	22.3%	280	32.3%	405
US	30.3%	314	38.5%	400
N	22.3%	1559	27.8%	1947

Note: Percentages in the table represent people who answered 5-7 on a seven-point scale on how likely it is that they would like, share or comment on the post. Included in the analysis were also individuals who indicated they would interact with the post to signal disagreement.

Figure II. Mean distributions of motivations for engaging with the different posts



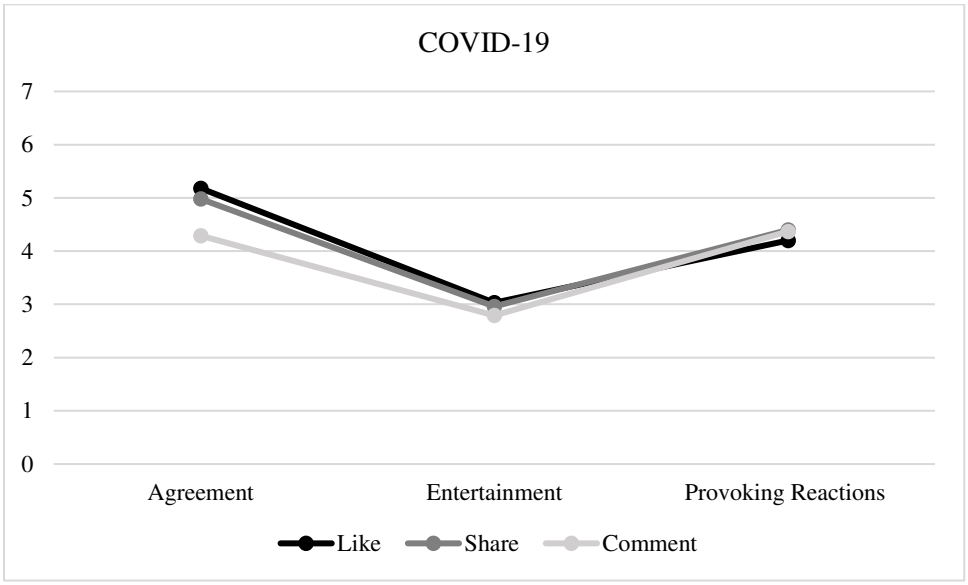


Table 2. Random effect models predicting the motivations for disseminating conspiracy theories

	Model 1 *Agreement/Conviction*	**Model 2** *Entertainment*	**Model 3** *Reaction provocation*
Ref = immigration			
- COVID-19	-.146**	.199**	.071
	(.051)	(.033)	(.039)
Ref = Like			
- Share	-.047	.024	.04
	(.028)	(.028)	(.03)
- Comment	-.161**	-.05*	-.029
	(.03)	(.029)	(.031)
Congruent attitudes	.166**	-.021	.045**
	(.02)	(.014)	(.017)
Political orientation	.158**	.028*	.021
	(.014)	(.012)	(.014)
Political interest	-.034	-.044*	.004
	(.023)	(.019)	(.023)
Narcissism	.015	.224**	.087**
	(.029)	(.024)	(.028)
Psychopathy	.109**	.324**	.09**
	(.032)	(.027)	(.031)
Machiavellianism	.149**	-.017	.03
	(.036)	(.03)	(.035)
Need for drama	-.014	.13**	.313**
	(.033)	(.027)	(.032)
Male	-.07	.149*	.161*
	(.077)	(.064)	(.075)
Age	.013**	-.015**	.011**
	(.003)	(.002)	(.003)
Education	-.106*	.034	.058
	(.049)	(.041)	(.048)
Social media activity	.052	.055*	.205**
	(.028)	(.023)	(.027)
Trust in news	-.064*	-.003	.01
	(.027)	(.022)	(.026)
Trust in social media	.164**	.188**	.078**
	(.028)	(.023)	(.027)
Ref = Belgium			
Switzerland	.097	.028	-.135
	(.141)	(.117)	(.137)
Germany	-.054	.229*	-.073
	(.136)	(.113)	(.132)
UK	.328*	.304**	-.04
	(.128)	(.106)	(.124)
France	.02	.018	.801*
	(.125)	(.104)	(.122)
US	.403**	.361**	.176
	(.126)	(.105)	(.123)
Constant	3.237**	-1.044	-1.652
	(1.106)	(.92)	(1.077)
$\sigma^2_{respondent}$	.313**	.25**	.409**
$\sigma^2_{respondent-issue}$	(.028)	(.02)	(.02)
$\sigma^2_{residual}$	.134**	-.622**	-.35**
N (observations)	**6531**	**6526**	**6523**
N (respondents)	**3160**	**3157**	**3157**

*Standard errors are in parentheses **p<.01,*p<.05*

Appendix A

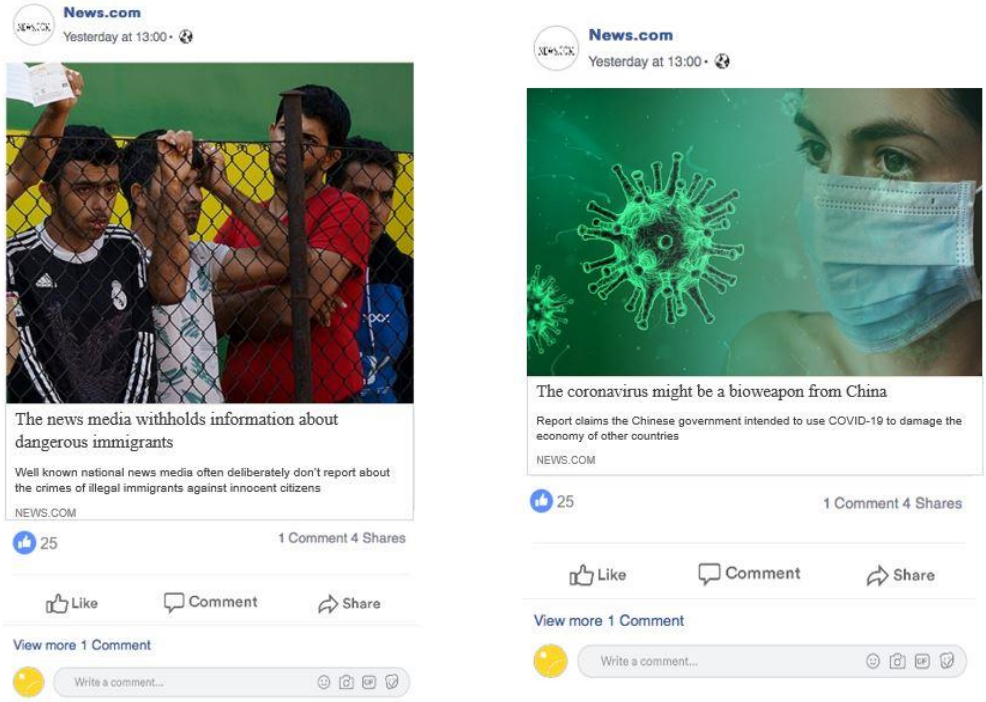
Table 1. Census data per country

	BE		CH		DE		UK		FR		US	
	n	%	n	%	n	%	n	%	n	%	n	%
Gender												
Male	514	50%	569	50%	507	51%	602	50%	611	49%	549	49%
Female	530	50%	579	50%	487	49%	792	50%	656	51%	500	51%
Age (years)												
18 - 29	249	22%	259	21%	207	21%	270	24%	242	21%	246	26%
30 - 39	181	20%	253	21%	179	18%	262	20%	210	19%	188	19%
40 - 49	188	20%	244	21%	204	21%	256	20%	245	20%	255	20%
50 - 59	225	21%	233	22%	231	23%	322	20%	264	20%	213	20%
60 - 69	200	17%	159	16%	173	17%	284	16%	306	19%	147	15%
Education												
Low	249	30%	88	18%	283	29%	430	21%	297	27%	447	42%
Medium	429	38%	652	48%	346	34%	520	43%	596	44%	280	29%
High	366	33%	408	34%	365	36%	44	37%	374	30%	317	29%

Note: In the survey we used a string variable for age. Certain age group frequencies might be slightly higher or lower than the quota since respondents had to be excluded that indicated their age incorrectly.

Appendix B

Figure I: Examples for online conspiracy theories vignettes



Appendix C

Liking

			Immigration				
BE	5.43	1.77	4.00	2.21	2.81	2.11	160
CH	5.78	1.44	4.03	2.17	2.62	2.11	110
DE	5.50	1.70	3.97	2.24	2.78	2.09	144
UK	5.37	1.62	4.23	2.05	3.07	2.20	155
FR	5.50	1.71	4.87	1.87	2.48	1.95	167
US	5.52	1.57	4.56	1.99	3.46	2.25	208
Total	5.50	1.64	4.31	2.10	2.91	2.15	944
			COVID-19				
BE	5.04	1.75	4.13	2.11	3.07	2.14	164
CH	5.09	1.82	3.66	2.10	2.87	2.18	129
DE	4.92	2.01	3.74	2.15	3.14	2.19	138
UK	5.39	1.64	3.94	2.16	3.15	2.18	205
FR	5.17	1.92	4.83	1.89	2.45	1.96	219
US	5.30	1.72	4.42	2.08	3.42	2.22	265
Total	5.18	1.80	4.20	2.11	3.03	2.16	1120

Sharing

			Immigration				
BE	5.07	2.01	4.12	2.12	2.61	2.01	178
CH	5.34	1.82	4.22	2.08	2.81	2.20	119
DE	5.11	2.14	4.19	2.14	2.87	2.19	159
UK	5.37	1.64	4.41	2.06	2.88	2.05	169
FR	5.07	1.84	5.13	1.76	2.39	2.06	189
US	5.40	1.78	4.70	1.97	3.30	2.26	204
Total	5.22	1.88	4.49	2.04	2.82	2.14	1018
			COVID-19				
BE	4.88	1.92	4.28	2.07	2.85	2.15	192
CH	4.81	2.06	3.72	2.08	2.91	2.20	139
DE	4.78	2.07	4.11	2.15	3.04	2.26	160
UK	5.16	1.72	4.19	2.08	3.19	2.21	231
FR	5.04	1.90	5.06	1.84	2.44	1.94	271
US	5.06	1.91	4.53	2.01	3.32	2.23	276
Total	4.98	1.92	4.40	2.06	2.96	2.17	1269

Commenting

			Immigration				
BE	4.59	2.26	4.06	2.11	2.77	2.16	173
CH	4.36	2.39	3.94	2.26	2.59	2.11	114
DE	4.24	2.38	4.03	2.22	2.56	2.06	173
UK	4.83	2.11	4.26	2.10	2.99	2.18	167
FR	4.55	2.26	5.16	1.79	2.42	2.03	167
US	5.14	1.91	4.69	2.01	3.36	2.22	208
Total	4.65	2.22	4.39	2.11	2.81	2.15	1002
			COVID-19				
BE	4.20	2.24	4.49	2.10	2.75	2.18	178
CH	3.94	2.38	3.50	2.22	2.63	2.19	120
DE	3.93	2.39	3.94	2.23	3.04	2.22	167
UK	4.33	2.81	4.18	2.12	2.85	2.14	223
FR	4.24	2.41	4.98	1.94	2.35	1.96	245
US	4.73	2.29	4.57	2.11	3.11	2.24	257
Total	4.29	2.34	4.37	2.15	2.79	2.16	1190

Appendix D

Items Dark Triad of personality traits

Narcissism

To what extent do you agree with the following statements?

I tend to want others to admire me.

I tend to want others to pay attention to me.

I tend to seek prestige or status.

I like to get acquainted with important people.

Psychopathy

To what extent do you agree with the following statements?

I tend to lack remorse.

I tend to be callous or insensitive.

People who mess with me always regret it.

Machiavellianism

To what extent do you agree with the following statements?

I have used flattery to get my way.

It's wise to keep track of information that you can use against people later.

Make sure your plans benefit you, not others.

Most people can be manipulated.

Appendix E

Likert items attitudinal congruence

Immigration

Now we would like to know more about your opinion on immigration. Please indicate to what extent you agree with the following statements.

Immigration to the U.S. should be restricted.

Immigrants contribute to the welfare of the U.S.

The social services in the U.S. are burdened by immigrants.

Immigrants are entitled to social support.

Appendix F

Means per country of all independent variables

Table 1. Means per country for personality traits

Narcissism

Country	Mean	Std. Deviation	N
BE	2.97	1.54	1063
CH	3.18	1.42	1250
DE	3.04	1.52	1019
UK	2.86	1.59	1380
FR	2.54	1.45	1253
US	3.25	1.68	1038
Total	2.96	1.55	7003
Psychopathy			
BE	3.16	1.35	1062
CH	2.86	1.20	1250
DE	2.87	1.30	1019
UK	2.45	1.36	1380
FR	3.34	1.39	1253
US	2.69	1.53	1038
Total	2.89	1.39	7002
Machiavellianism			

BE	3.61	1.21	1062
CH	4.09	1.19	1249
DE	4.08	1.23	1019
UK	3.26	1.35	1380
FR	3.88	1.23	1253
US	3.36	1.46	1038
Total	3.71	1.32	7001
Need for Drama			
BE	2.97	1.36	1063
CH	2.89	1.16	1250
DE	2.85	1.25	1019
UK	2.93	1.50	1380
FR	3.42	1.40	1253
US	3.27	1.50	1037
Total	3.05	1.39	7002

Table 2. Means per country for political orientation

Country	Mean	Std. Deviation	N
BE	6.38	2.56	1062
CH	5.82	2.43	1248
DE	5.65	2.15	1018
UK	6.02	2.15	1380
FR	6.02	2.67	1252
US	6.39	2.71	1038
Total	6.04	2.46	6998

Table 3. Means per country for political interest

Country	Mean	Std. Deviation	N
BE	3.93	1.89	1064
CH	4.26	1.78	1251
DE	4.71	1.70	1019
UK	4.20	1.88	1381
FR	3.72	1.93	1254
US	4.52	1.84	1038
Total	4.21	1.87	7007

Table 4. Means per country for social media use

Country	Mean	Std. Deviation	N
BE	2.79	1.50	1065
CH	2.40	1.37	1251
DE	2.72	1.54	1019
UK	2.75	1.61	1381

FR	2.63	1.43	1255
US	3.18	1.77	1038
Total	2.73	1.55	7009

Table 5. Means per country for social media activity

Country	Mean	Std. Deviation	N
BE	3.35	1.45	1065
CH	3.06	1.51	1251
DE	3.25	1.67	1019
UK	3.46	1.60	1381
FR	3.44	1.40	1255
US	3.72	1.65	1038
Total	3.38	1.56	7009

Table 6. Means per country and issue for trust

Trust in News			
Country	Mean	Std. Deviation	N
BE	4.59	1.40	1065
CH	4.30	1.45	1251
DE	4.50	1.56	1019
UK	4.20	1.52	1381
FR	3.80	1.43	1255
US	4.07	1.68	1037
Total	4.23	1.53	7008
Trust in Social media News			
BE	3.28	1.56	1065
CH	3.21	1.48	1251
DE	3.37	1.60	1019
UK	2.99	1.59	1381
FR	3.14	1.48	1255
US	3.30	1.73	1037
Total	3.20	1.57	7008
Trust in Government			
BE	3.24	1.63	1065
CH	4.07	1.54	1251
DE	3.79	1.71	1019
UK	3.46	1.64	1381
FR	2.72	1.63	1255
US	3.12	1.61	1038
Total	3.40	1.69	7009

Appendix G: Pairwise correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
(1) like immigration	1.000																			
(2) share immigration	0.627	1.000																		
	(0.000)																			
(3) comment immigration	0.514	0.595	1.000																	
	(0.000)	(0.000)																		
(4) like covid	0.450	0.347	0.315	1.000																
	(0.000)	(0.000)	(0.000)																	
(5) share covid	0.347	0.460	0.344	0.599	1.000															
	(0.000)	(0.000)	(0.000)	(0.000)																
(6) comment covid	0.310	0.367	0.488	0.458	0.539	1.000														
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)															
(7) attitudes immigration	0.161	0.165	0.064	0.088	0.100	0.046	1.000													
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)														
(8) attitudes covid	0.021	0.051	0.045	0.019	0.042	0.042	0.065	1.000												
	(0.081)	(0.000)	(0.000)	(0.111)	(0.000)	(0.000)	(0.000)													
(9) political orientation	0.230	0.211	0.138	0.146	0.152	0.115	0.416	-0.041	1.000											
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)												
(10) political interest	0.157	0.135	0.181	0.072	0.068	0.142	-0.130	-0.090	0.077	1.000										
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)											
(11) Narcissism	0.198	0.182	0.193	0.186	0.172	0.169	-0.122	-0.099	0.080	0.169	1.000									
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)										
(12) Psychopathy	0.229	0.221	0.218	0.196	0.179	0.168	0.109	0.031	0.169	0.040	0.367	1.000								
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.010)	(0.000)	(0.001)	(0.000)									
(13) Machiavellianism	0.188	0.182	0.165	0.150	0.143	0.124	0.106	-0.044	0.136	0.102	0.412	0.513	1.000							
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)								
(14) Need for drama	0.233	0.239	0.254	0.225	0.217	0.219	0.033	0.061	0.133	0.114	0.383	0.515	0.506	1.000						
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.005)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)							
(15) sex	0.097	0.101	0.110	0.054	0.051	0.084	0.027	-0.013	0.117	0.270	0.094	0.162	0.132	0.170	1.000					
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.026)	(0.268)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)						
(16) age	0.001	0.013	0.014	-0.024	-0.004	0.025	0.215	0.018	0.068	0.136	-0.269	-0.165	-0.149	-0.101	0.124	1.000				
	(0.922)	(0.288)	(0.241)	(0.044)	(0.732)	(0.039)	(0.000)	(0.124)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)					
(17) education	-0.057	-0.071	-0.046	-0.100	-0.105	-0.069	-0.186	-0.066	-0.043	0.178	0.121	0.009	0.061	0.011	0.056	-0.179	1.000			
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.456)	(0.000)	(0.378)	(0.000)	(0.000)				
(18) Social media activity	0.244	0.267	0.271	0.276	0.290	0.265	-0.084	0.055	0.053	0.112	0.329	0.221	0.166	0.242	0.019	-0.262	0.016	1.000		
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.107)	(0.000)	(0.182)			
(19) Trust in news	0.035	0.029	0.045	0.070	0.080	0.078	-0.105	-0.241	-0.018	0.125	0.154	0.005	0.053	-0.005	0.023	0.069	-0.016	0.078	1.000	
	(0.004)	(0.014)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.123)	(0.000)	(0.000)	(0.705)	(0.000)	(0.668)	(0.050)	(0.000)	(0.187)	(0.000)		
(20) Trust in social media	0.180	0.205	0.192	0.217	0.240	0.191	-0.003	-0.063	0.069	0.020	0.258	0.166	0.127	0.154	0.016	-0.070	-0.093	0.396	0.465	1.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.775)	(0.000)	(0.000)	(0.090)	(0.000)	(0.000)	(0.000)	(0.000)	(0.174)	(0.000)	(0.000)	(0.000)	(0.000)	

Appendix H: Example of the data structure

Note: This is an example of the data structure with multiple respondents for a few variables. In this case we have three respondents. Respondent 1 indicated to like and share the immigration story, respondent 2 indicated to like, share and comment on both stories. Respondent 3 likes the immigration and COVID-19 story.

ID	Respondent ID	Issue	Type	Motivation conviction (DV1)	Motivation entertainment (DV2)	Motivation provoke (DV3)	Attitudinal congruence	Psychopathy	…
1	1	Immigration (0)	Like (0)	6	2	3	6	3.25	..
2	1	Immigration (0)	Share (1)	5	3	6	6	3.25	..
3	2	Immigration (0)	Like (0)	1	2	5	3.25	5.5	..
4	2	Immigration (0)	Share (1)	2	3	6	3.25	5.5	..
5	2	Immigration (0)	Comment (2)	3	4	5	3.25	5.5	..
6	2	Covid (1)	Like (0)	1	3	6	4.25	5.5	..
7	2	Covid (1)	Share (1)	2	3	5	4.25	5.5	..
8	2	Covid (1)	Comment (2)	3	4	4	4.25	5.5	..
9	3	Immigration (0)	Like (0)	4	5	2	4	4.75	..
10	3	Covid (1)	Like (0)	5	4	3	5	4.75	..
11	..	..	..	..	..	..	..	..	..