Source Matters: The Impact of Visual Cues on Perceived Source Credibility and Belief in Disinformation on Short Video Platforms

Frederik Schultz

Faculty of Behavioural, Management and Social Sciences (BMS)

Communication Science

Dr. Shenja van der Graaf

01.07.2024

Abstract

In the digital age, young adults increasingly rely on social media for news consumption, shifting away from traditional sources like newspapers and TV. This trend poses challenges due to social media's rapid information dissemination and lack of editorial oversight, which facilitate the spread of disinformation. This study examines the impact of visual cues—specifically, the blue verification tick and profile visuals mimicking legitimate news organisations—on perceived source credibility and belief in disinformation on short video platforms.

Using a 2x2 experimental design, participants viewed a simulated short video feed including disinformation videos with varying visual cues. Findings indicate that mimicked profile visuals significantly enhanced perceived source credibility, while the blue verification tick and their interaction did not influence perceptions. Perceived source credibility, in turn, positively affected belief in misinformation, serving as a mediator between visual cues and belief. However, mimicked profile visuals exhibited a negative direct effect on belief in disinformation.

The study suggests that the perceived source credibility once associated with blue verification ticks diminished, possibly since some social media platforms recently made it purchasable. It also underscores the concerning influence of mimicked profile visuals on belief in disinformation mediated through perceived source credibility. Nonetheless, the direct negative impact of mimicked profile visuals on belief in disinformation may reflect increased media literacy among Western European young adults. These findings underscore the urgent need for strategies to counteract disinformation on short video platforms, ensuring young adults' access to trustworthy information and preserving democratic integrity.

Keywords: Disinformation, social media, visual cues, perceived source credibility, short videos

Contents

Introduction

In today's digital era, young adults predominantly rely on social media platforms for their news consumption, presenting a significant departure from traditional methods like newspapers or televised broadcasts (European Parliament, 2023; Mitchell et al., 2020; Nazari et al., 2022; Pérez-Escoda et al., 2021). However, this shift brings unique challenges, as social media's characteristics differ from those of traditional news sources, particularly in terms of facilitating the spread of false information.

Unlike traditional media, social media platforms allow every user to instantly share information, enabling rapid dissemination (Nazari, 2022; Wang et al., 2018). This speed advantage, however, often outpaces fact-checking efforts, with false information gaining traction before corrections can be made (Aïmeur et al., 2023). Furthermore, the absence of editorial checks, common in traditional news media exacerbates the problem, while the engagement-driven nature of social media fuels the spread of sensationalized or inaccurate content (Saurwein & Spencer-Smith, 2020; Brashier & Schacter, 2020; Nazari et al., 2022).

Among social media platforms, short video platforms such as TikTok, Instagram Reels, and YouTube Shorts have become particularly influential for young adults (Statista, 2023; Statista, 2024a). These platforms have revolutionised content consumption by using algorithms to decide what content users watch (Koç, 2023). The algorithms employed by these platforms prioritise content with high engagement, often recommending videos about controversial or polarising topics, including disinformation (Saurwein & Spencer-Smith, 2020).

Such characteristics make social media a fertile ground for intentional exploitation by individuals and organisations seeking to spread disinformation. It has been demonstrated that such campaigns have been active online on social media platforms, for example during the current Russia-Ukraine Conflict (Karalis, 2024; Saurwein & Spencer-Smith, 2020; Soares et al.,

2023). Additionally, various efforts have been made to influence elections and sow division within the populations of the USA and Europe (Brashier & Schacter, 2020; Karlsen, 2019; Lukito, 2019; Saurwein & Spencer-Smith, 2020). These examples highlight the significant threat posed by such campaigns to democratic societies.

Building on the understanding of how disinformation spreads through social media, this research aims to delve into specific visual cues that might amplify the perceived credibility of disinformation, thus making them more believable (Traberg & Van Der Linden, 2022). Recent policy changes by prominent social media companies like X and Meta, allowing users to purchase verification badges (commonly represented by a 'blue tick') (Meta, n.d. -a; X Corp., n.d.), might have introduced new variables into the credibility equation on these platforms. Traditionally, a blue tick indicates that a platform has verified the user's identity, often linked to public figures or organisations, which lead users to associate the badge with credibility and trustworthiness (Arguedas et al., 2023; Vu & Chen, 2023).

Another area of concern are channels that mimic legitimate news organisations. These entities often adopt misleading names and profile pictures which bear a close resemblance to those of reputable news outlets (Lepipas et al., 2024), potentially capitalizing on the established credibility and authority of these organisations (Pérez-Escoda et al., 2021). However, systematic academic studies exploring the manipulation of profile visuals to appear credible are sparse, particularly in the context of short video platforms like Instagram, YouTube, and TikTok. Furthermore, the intersection of such deceptive practice combined with the newly purchasable blue verification ticks represents an unexplored area, highlighting a critical gap in the current understanding of social media and disinformation.

Addressing this gap is crucial because young adults consume information on these platforms daily, potentially shaping their beliefs and behaviours based on false premises. Understanding how visual cues influence credibility and belief can help develop more effective strategies to counter disinformation, thereby preserving democratic processes and promoting an informed citizenry. By conducting a 2x2 experiment, this research aims to investigate the main research question:

RQ – How do visual cues in disinformation videos, particularly the presence of a blue tick and the strategic use of profile visuals that mimic those of legitimate news organisations, impact the perceived credibility of sources and the belief in disinformation among young adults in Western Europe?

This examination not only fills a crucial gap in understanding but also provides actionable insights for proactive strategies.

In this paper, first the foundational background knowledge and relevant research findings regarding disinformation on short video platforms are discussed, followed by the conceptual model, analysed in this study. Following that, the methodology section outlines the approach, including a 2x2 experimental design aimed at investigating the impact of both visual cues on belief in disinformation. Subsequently, the paper presents and analyses the results of this experiment, revealing significant insights into the credibility perception and belief of disinformation on short video platforms. Finally, the implications of these findings are discussed, offering recommendations for future research directions and potential strategies for short video platform organisations to mitigate the spread of disinformation.

Theoretical Framework

Disinformation on Short Video Platforms

Disinformation refers to false information that is deliberately spread with the intent to deceive, manipulate, or influence opinions, beliefs, or behaviours (Bundesregierung, n.d.; European Commission, 2022; Ecker et al., 2022). On a political level, this practice is not new, as it has been used since ancient times by political leader to mislead the public or manipulate events to their advantage. (Lateiner, 2021; Posetti & Matthews, 2018). The invention of the printing press in 1450 marked a significant turning point, starting an era where technological innovations play a pivotal role in the dissemination of disinformation (Hanley & Munoriyarwa, 2021). From the printing press to modern communication mediums, each new invented information communication technology has shaped and adapted the propagation of false narratives to reach increasingly larger audiences.

In today's digital landscape, especially among young adults, short video platforms like Instagram, and TikTok are a popular and widely used medium (Howarth, 2024; Shewale, 2024; Statista, 2023; Statista, 2024a). The particularity of this type of media consumption is that the user does not actively choose which video they want to watch (Koç, 2023). Algorithms take over this decision and play videos with the aim of keeping the user on the platform for as long as possible, often to maximise advertising revenue. However, as videos about controversial or polarising topics often tend to attract more attention they are preferred by the algorithms and thus recommended more often (Saurwein & Spencer-Smith, 2020). This preference for controversial content inherently encourages the spread of disinformation, which is pushed into users' feeds by the platforms' algorithms.

In favour of disinformation spreaders, short video platforms make it difficult for users to recognise whether the video selected by the algorithm comes from a reputable source. The

videos on these platforms are known for its attention-grabbing visuals and rapid delivery (Qin et al., 2022). Given that the platform primarily caters to younger demographics, video creators adapt to the content style that proves successful on such platforms (Ionescu & Licu, 2023). Many official news channels on platforms like TikTok employ similar techniques and approaches to make their content visually appealing and accessible (Newman, 2022). Even reputable news organisations have adopted this style, making it difficult to immediately discern whether a video originates from a legitimate source.

Additionally, the rapid consumption behaviour on platforms like TikTok, characterised by short, successive videos (Lan & Tung, 2024), favours a superficial intake of information, where users often fail to verify sources and accuracy. The combination of brief content and a constant stream of new videos makes it challenging for users to grasp complex topics adequately and obtain background information (Ma et al., 2021). This environment creates susceptibility to disinformation, as users fail to consider a variety of perspectives or sources (Alonso-López et al., 2021). The superficiality of information consumption may lead users to adopt one-sided or incomplete views and uncritically accept false information.

Visual Cues

Visual cues play a vital role for successful content of short video platforms, serving as essential elements that capture users' attention and convey information effectively. For instance, visual cues such as colour contrasts, visual complexity, and catchy thumbnails are commonly employed to draw viewers' focus towards specific content (Dimitroyannis et al., 2024; Koller & Grabner, 2022; Shen et al., 2022). The significance of these visual cues becomes evident on short video platforms, where creators aim to succinctly convey their message amidst a sea of competing content. Especially due to the limited time, every visual element in the frame counts,

to effectively convey the video's meaning (Jiang, 2020). However, it is crucial to recognise that not only legitimate content creators make use of visual cues; disinformation spreaders also leverage them to amplify attention and bolster perceived credibility (Dan et al., 2021). This illustrates those visual cues, while effective for communication, can also be exploited for disinformation.

In this study two distinct visual cues on short video platform feeds are analysed, namely the presence of a blue verification tick and the profile visuals (profile picture and username). In the upcoming section, the significance of the blue verification tick is discussed, exploring its impact on user perception and credibility, as well as the implications of its monetisation. Following that, the role of mimicked profile visuals is examined, investigating how profile pictures and usernames influence audience engagement, trust, and the potential for misuse and impersonation.

Blue Tick

The blue tick on short video platforms serves as a visual cue indicating that an account is verified by the platform. This symbol is often associated with public figures, celebrities, or brands (TikTok, n.d.-b). To obtain a blue tick, users typically need to satisfy specific criteria set by the platform, which generally include proving their identity, demonstrating a degree of public interest or influence, and adhering to the platform's community guidelines (Google, n.d.; Meta, n.d.-b). The process often involves submitting official documentation and undergoing a review process to ensure the account's credibility and relevance.

Recent studies examining the impact of the blue tick on user perceptions have yielded mixed findings. While earlier research suggests that the blue tick primarily elicits associations with celebrity status rather than credibility, particularly within the context of influencer content

(Chang et al., 2021; Lee & Park, 2022), recent investigations have revealed a nuanced picture. Specifically, in the domain of news channels, the presence of the blue tick has been shown to positively influence user perceptions of credibility and trustworthiness (Arguedas et al., 2023; Vu & Chen, 2023). This divergence in effects could potentially be attributed to the distinct nature of news content, where audiences are primarily seeking reliable and trustworthy information (Swart & Broersma, 2021). Here, the blue tick servers as an important visual cue, suggesting that the channel is credible and has passed certain verification processes (Arguedas et al., 2023; Vu & Chen, 2023).

However, the monetisation of the blue tick presents a significant risk. Some platforms have introduced a feature allowing users to purchase the blue tick for a paid subscription (Meta, n.d. -a; X Corp., n.d.). For example, when X introduced this feature, a flood of verified fake channels emerged, including those disseminating disinformation (Sardarizadeh, 2023), exploiting the perceived credibility conferred by the blue tick (Mac et al., 2022). Similarly, Meta, with its expansive reach across various platforms including Instagram Reels, has adopted this paid verification feature, highlighting a broader trend across social media (Kohlmann, 2023). This development is concerning as it potentially allows disinformation spreaders to boost their credibility by purchasing verification subscriptions.

The hypothesis (*H1*) of this research posits that the presence of a blue verification tick significantly increases the perceived credibility of the source. This research tests if the blue tick still presents a marker for credibility after its monetisation has been normal on Instagram, Facebook, Snapchat, and X for over a year now. Recognising the emerging trend of paid verification, it is crucial to reassess the impact of the blue tick on perceived source credibility in

a landscape where this feature is no longer exclusive to verified public figures or organisations but is available to anyone willing to pay for it.

Profile Visuals (Username + Profile Picture)

As users scroll through the feeds of short video platforms, each video is accompanied by a profile picture and a username, serving multiple purposes within the platform ecosystem (Li & Xie, 2019; Sinnott & Wang, 2021). These visual elements not only aid in profile identification, allowing users to distinguish between different accounts and creators, but also foster peer engagement and social interaction within the platform community.

Regarding these visual cues, users have the autonomy to customize their profile visuals when creating their accounts or adapt and change them during use (Meta, n.d.-c; TikTok, n.d.-a). This customisation aspect adds a layer of personalisation to the platform experience, allowing users to express themselves creatively and establish their unique online presence. However, the flexibility of profile visuals also opens the door for misuse and exploitation, particularly in the context of impersonation and deception. Instances have been observed where malicious actors create accounts that mimic the profile visuals of well-known news outlets (Lepipas et al., 2024).

Such impersonated accounts often aim to deceive users by masquerading as legitimate sources of information, exploiting the perceived credibility young adults associate with those organisations (Gasimova, 2023; Lepipas et al., 2024; Pérez-Escoda et al., 2021). Thus, the second hypothesis (*H2*) suggests that the use of such mimicked profile visuals significantly increases the perceived credibility of the source. Sometimes such manipulative tactics are facilitated by the prioritisation of these impersonated accounts by the platform's search and recommendation algorithms, leading unsuspecting users to engage with or trust these fraudulent

accounts (Lepipas et al., 2024). This form of manipulation not only undermines the integrity of the platform but also poses significant risks in the context of disinformation dissemination.

(Combination of Both)

Combining manipulated profile visuals that mimic reliable news organisations with a purchased blue tick allows disinformation channels to create a convincing facade, making them even harder to distinguish from genuine news sources. The hypothesis (*H3*) posits that the combination of a blue verification tick and mimicked profile visuals results in the highest perceived credibility of the source (moderation effect). This potentially dangerous tactic might boost the channel's perceived credibility to an even greater extend.

Perceived Source Credibility

In the context of news, perceived source credibility refers to the extent to which the audience believes in the trustworthiness, expertise, and goodwill of the information provided by a source (Landreville & Niles, 2019). Especially in the realm of social media, research indicates that the perceived credibility of a source is an important factor in shaping beliefs and stands as an important link between the information about a source displayed and the belief in the information shown (Nadarevic et al., 2020). Furthermore, this interplay between perceived source credibility and the perceived truth of information is critical in the context of social media disinformation, as disinformation spreaders can easily exploit these perceptions to spread falsehoods that are readily accepted by audiences.

The hypothesis (H4) states that the perceived credibility of the source significantly increases belief in the disinformation presented. Additionally, hypothesis (H5) posits that the perceived credibility of the source mediates the relationship between the independent factors (blue verification tick, mimicked profile visuals, and their interaction) and belief in the

disinformation presented. As users place trust in sources deemed credible, the likelihood of accepting and internalising the false information disseminated by these sources increases (Pilditch et al., 2020). This relationship underscores the potential danger of using both visual cues to increase belief in disinformation via boosting the perceived source credibility.

Disinformation Belief

Disinformation belief refers to the extent to which individuals accept and internalize deliberately spread false information as true. Believing such information can create a snowball effect, as users sharing the disinformation leads to increased engagement and further spread of the false information within online social networks (Altoe et al., 2024; Daunt et al., 2023). This can have significant consequences for public opinion, behaviour, and decision-making (Bastick, 2021; Zimmermann & Kohring, 2020). Believing disinformation can lead to misinformed public discourse, influence electoral outcomes, and sow discord within societies (Brashier & Schacter, 2020; Karlsen, 2019; Lukito, 2019; Saurwein & Spencer-Smith, 2020). Ultimately, combating disinformation is essential for maintaining informed and stable societies.

Conceptual Model

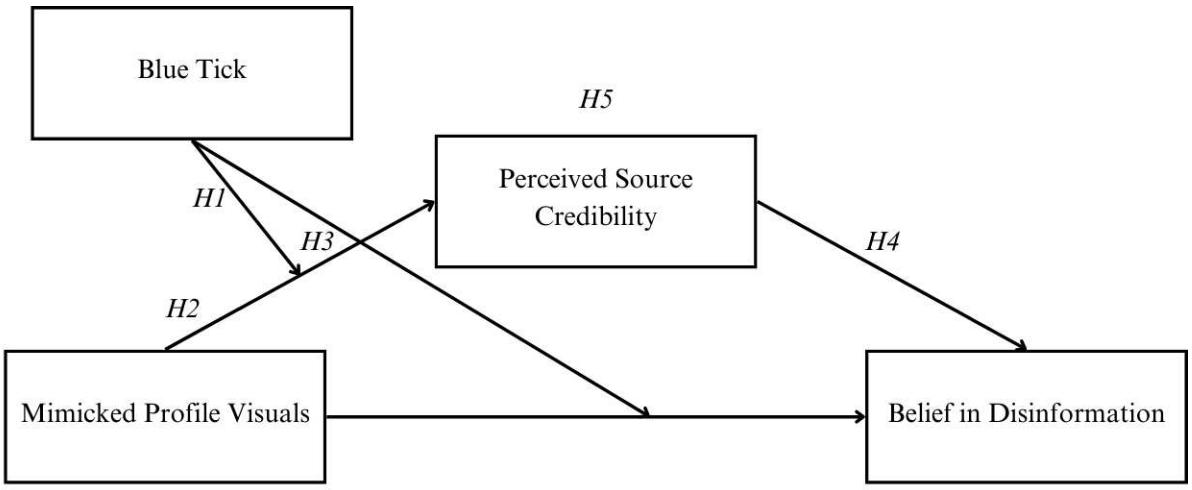
Building on previous research that highlights the potential effect of visual cues in the realm of disinformation, this study explores the nuanced role of the blue tick and mimicked profile visuals in enhancing the perceived credibility of disinformation. Prior studies have shown that visual elements like verification ticks can influence user perceptions of credibility (Vu & Chen, 2023; Arguedas et al., 2023). However, there is a gap in understanding how these verification ticks interact with profile visuals that mimic legitimate news organisations, particularly in the context of short video platforms like TikTok and Instagram Reels.

Considering the relevance of short video platforms for young people in terms of media consumption, this research seeks to complement existing literature by focusing on the isolated and combined effects of blue verification ticks and mimicked profile visuals. By providing a more comprehensive understanding of how these cues affect user perceptions and beliefs today, a critical gap in the current understanding of social media disinformation dynamics is addressed.

The conceptual model for this study integrates both visual cues, perceived source credibility, and belief in disinformation, illustrating their interrelationships. It also includes the mediation effect of perceived source credibility on the relationship between these visual cues and belief in disinformation. Analysing this model provides empirical evidence on the role of visual cues in influencing perceptions and beliefs on short video platforms, offering crucial insights for developing proactive strategies to combat disinformation on short video platforms. The illustrated model can be seen in Figure 1.

Figure 1

Conceptual Model



H1: positive direct effect of blue tick on perceived source credibility
H2: positive direct effect of mimicked profile visuals on perceived source credibility
H3: positive moderation effect of blue tick and mimicked profile visuals on perceived source credibility
H4: positive direct effect of perceived source credibility on belief in disinformation
H5: positive mediation effect

Methods

Design

For the present experimental study, a 2x2 design was chosen. Participants were divided into four groups and exposed to different conditions based on two visual cues: the presence of a blue verification tick and the use of profile visuals mimicking legitimate news organisations. This design allows to analyse the independent and combined effects of these visual cues on perceived source credibility and belief in disinformation.

The first group encountered disinformation videos that included both a blue verification tick and mimicked profile visuals. The second group was exposed to the same disinformation videos also featuring a blue verification tick but with neutral profile visuals. The third group viewed the same disinformation videos with profile visuals mimicking legitimate news organisations but without a blue verification tick. The fourth group served as a control group, viewing disinformation videos with neutral profile visuals and no blue verification tick (see Appendix A, Figure A1 for the manipulated visual cues per group).

The chosen 2x2 design ensures that each participant is only exposed to one condition, eliminating potential carryover effects that could arise if participants were to experience multiple conditions (Bhandari, 2021). Although this research design requires more participants than a within-subject design, it results in a shorter duration for the study, preventing high dropout rates. Also, by isolating the effects of the blue verification tick and mimicked profile visuals, the study can more accurately attribute changes in perceived source credibility and belief in disinformation to these specific visual cues.

Participants

Participants were partly recruited using online platforms such as Reddit, Instagram, and LinkedIn. Additionally, snowball and convenient sampling was employed by asking friends and family to refer individuals who met the study's inclusion criteria. The inclusion criteria for participants comprised (a) being between 18 and 30 years old, (b) having an existing internet connection for the use of the online questionnaire, and (c) living in a western European country. Ethical approval (#240929) for the present study was obtained from the BMS Ethics Committee before recruitment began. The data collection took place from May 27 to June 7, 2024.

The data was trimmed to remove unfinished responses and participants that misidentified key information. From the initial pool, 76 responses were excluded due to incomplete data, and 16 responses were removed due to misidentification issues. Additionally, three responses were excluded because participants retracted their informed consent after reading the debrief. After trimming, the final data set had 112 responses. Out of the four experimental conditions, Group one consisted of 29, group two of 30, group three of 27, and group 4 of 26 participants.

The mean age of all participants resulted in 23.9 years (*SD* = 3.0)**,** ranging from 18 to 30 years. There were 44 female participants (39.2%) and 65 male participants (58.0%) taking part in the survey. Three participants identified as nonbinary/third gender (2.7%). All participants reported living in a western European country, with most participants living in Germany (61.6%), the Netherlands (17.0%), and Luxembourg (11.6%). In terms of education, most participants indicated either "Some university but no degree" (30.4%)**,** or "Upper secondary education (up to age 18)" (27.7%) as their highest achievement. Further, most participants indicated consuming less than one hour of short videos per day (45.5%) while most spent their

time on the platform Instagram Reels to consume such videos (43.8%) (see Appendix B, Table B1 for detailed description of the sample).

Procedure

The experiment was conducted online using the online survey tool Qualtrics (www.qualtrics.com). Participants were recruited and initially provided with an informed consent form, outlining the general nature of the study as focusing on human behaviour on short video platforms. However, key details about the presence of disinformation were withheld to prevent bias in their responses. Participants had to give their consent before beginning the experiment.

After giving consent, participants provided demographic information, including their age, gender, level of education, frequency of short video consumption, and their primary short video platform. This data helped analyse any potential differences in perception based on these demographic factors.

Following that, participants were randomly assigned to one of four groups in a 2x2 experimental design. Each group was exposed to a simulated social media feed containing a total of 20 short videos, including five disinformation videos on fictitious topics unrelated to current events. The videos varied between the different groups, based on two visual cues: the presence or absence of a blue verification tick and the use of profile visuals mimicking legitimate news organisations versus a neutral profile.

Participants were instructed to watch the videos. To ensure that all participants watched the videos in their entirety, the 20 individual videos were compiled into a single compilation. This approach prevented participants from skipping through the content. Additionally, a timer was activated as soon as the participant began watching the video. This timer was linked to the

survey's "Continue" button, allowing participants to proceed to the next page only after 5 minutes had elapsed. After viewing the videos, they were first asked to rate their belief in the disinformation presented, followed by the perceived credibility of the associated sources, using 7-point Likert scales.

Following the completion of these tasks, participants were debriefed. During the debriefing, they were informed about the true nature of the study, including the presence of disinformation and the initial deception regarding the study's aims. All false statements were corrected. Participants were then asked to give their consent again, ensuring they were comfortable with their participation in light of the new information provided (see Appendix C, for the complete questionnaire).

Materials

This section outlines the materials used in the study, including the stimuli and measures. The stimuli used in this study included the creation and categorisation of disinformation videos, featuring blue verification ticks and mimicked profile visuals. The dependent variables of this study were the levels of perceived source credibility and disinformation belief (see Appendix D, Table D1 for operationalisation of dependent variables). Additional measures included demographic information such as age, gender, level of education, and the frequency and main platform of short video consumption, which were collected to analyse potential effects on the outcome variables in an exploratory manner.

Stimuli

The primary stimuli in this study consisted of five disinformation videos with varying visual cues per condition to test their impact on perceived source credibility and belief in disinformation. The videos were produced by the researcher making use of common video

editing tools, such as Adobe Premiere and the TikTok Video Editor, to mimic real short video content. Each disinformation video addressed fictitious topics unrelated to current events to control for prior knowledge and biases. The topics included fictional events, exaggerated scientific discoveries, and invented social media trends. These topics were chosen to resemble typical themes seen on social media without referencing actual events or widely known disinformation narratives. For a detailed description of each topic per video see Appendix E, Table E1.

The stimuli varied two visual cues: the presence or absence of a blue verification tick and the use of profile visuals mimicking legitimate news organisations versus neutral profile visuals. The four conditions were as follows:

1. **Blue Verification Tick and Mimicked Profile Visuals:** In this condition, the videos featured a blue verification tick next to the profile name, indicating a verified account. The profile visuals were designed to mimic those of legitimate news organisations, incorporating similar logos, and usernames. This condition aimed to create a highly credible appearance to test its impact on participants' perceptions.
2. **Blue Verification Tick and Neutral Profile Visuals:** Videos in this condition also featured a blue verification tick, but the profile visuals were neutral, without any specific design elements linking them to legitimate news organisations. Neutral profile names were created by the researcher, ensuring they did not resemble any existing organisations or individuals. This setup aimed to isolate the effect of the blue verification tick on perceived credibility and belief in disinformation.
3. **No Blue Verification Tick and Mimicked Profile Visuals:** The disinformation videos in this condition did not have a blue verification tick, representing unverified accounts.

However, the profile visuals mimicked legitimate news organisations. This condition allowed the isolate of the impact of mimicked profile visuals without the influence of verification status.

4. **Neutral Profile Visuals and No Blue Verification Tick (Control Group):** The control group videos lacked both, the blue verification tick and the mimicked profile visuals. The profile visuals were neutral and generic, providing a baseline for comparison. This group measured the natural level of perceived credibility and belief in disinformation without making use of the investigated visual cues.

The decision to include five disinformation videos was based on balancing the need for a robust measure of disinformation belief and source credibility with the practical consideration of participant engagement. Five videos provided a sufficient size to observe variations in responses while keeping the overall duration of the experiment manageable to minimise participant fatigue.

Perceived Source Credibility

For this study, participants were asked to report on the perceived source credibility of the videos they viewed, particularly the total of five videos containing disinformation. They rated the credibility of the sources on a 7-point Likert scale, ranging from “Not Credible at All” (1) to “Completely Credible” (7). The average ratings provided insight into how the presence of a blue verification tick and the use of profile visuals mimicking legitimate news organisations, influenced participants' perceptions of source credibility. This method is adapted from Traberg & Van Der Linden (2022), who used similar measures to evaluate the credibility of different news sources. Since the news sources used by Traberg & Van Der Linden (2022) differ from those used in this study, a custom scale was developed for this experiment. For the present sample, the

scale showed good internal consistency (α = .85) and a satisfactory KMO-value of .77, indicating adequate sampling, while factor analysis revealed that one underlying factor was measured.

Disinformation Belief

For each disinformation video, participants indicated the extent to which they believed the information was real on a 7-point Likert scale (1 = Strongly Disbelief, to 7 = Strongly Belief). This belief measure was aggregated into a composite score reflecting overall belief in the disinformation content. This approach follows the methodology outlined by Pereira et al. (2021), where such scale showed decent internal consistency in a total of three experiments. Similar to the perceived source credibility scale, a unique scale was developed for this experiment because the belief statements had to relate to the content of the disinformation videos in this study. In this experiment the constructed scale exhibited decent internal consistency (α =.7) and a satisfactory KMO value of .69, indicating adequate sampling for the present sample. Additionally, factor analysis revealed a unidimensional structure.

Data Analysis

The statistical analysis was performed using the statistical software RStudio, with the packages: tidyverse, lmtest, car, mediation, janitor, dplyr, ggplot2, corrplot, and psych. The dataset was first cleaned by removing unfinished and invalid responses. Also, the responses from participants aged "17 or younger", "31 or older", and those from countries outside from Western Europe were excluded. Then, composite scores for belief in disinformation and perceived source credibility were computed as mean values of relevant items. Additionally, dummy variables were created to represent the experimental conditions: *News_dummy* for groups exposed to mimiced profile visuals and *BlueTick_dummy* for groups exposed to a blue verification tick.

Following that, descriptive statistics and internal consistency measures were then calculated to understand the sample characteristics and scale reliability. First, the mean scores and standard deviations for perceived source credibility and belief in disinformation were calculated for the entire sample and for each group individually. Then, these scores were visualised using boxplots. The internal consistency of the belief and credibility scales was assessed using Cronbach's alpha. Also, factor analyses were conducted on the credibility and the belief items, and the Kaiser-Meyer-Olkin (KMO) measure confirmed the adequacy of the sample for these analyses.

After this step, Correlation analyses were performed to examine the relationships between demographic variables, belief in disinformation, perceived source credibility, blue tick, and mimicked profile visuals. Age, education, and media consumption were treated as numeric variables. For their indicated main short video platform, a separate exploratory correlation analysis was performed between each category using dummy variables and the dependent and demographic variables.

For the inferential statistics, a series of linear models were built. First, a mediator model was constructed to examine the impact of *News_dummy* and *BlueTick_dummy* and their interaction on perceived source credibility (hypothesis 1, 2, and 3). Subsequently, an outcome model was developed to investigate the effect of these variables, their interaction, and perceived source credibility on the belief in disinformation (hypothesis 4). Also, the independent variables were mean-centred before analysis to simplify the interpretation of the regression coefficients and reduce potential issues with multicollinearity.

The assumptions necessary for linear regression analysis were tested using various diagnostic plots and statistical tests. For both linear models, the Durbin-Watson test indicated the

independence of observations. To ensure linearity a partial residual plot was created. The Breusch-Pagan test indicated homoscedasticity, and Variance Inflation Factors (VIF) values indicated the models' multicollinearity. Lastly, a Shapiro-Wilk tests visualised the normality for both models.

Finaly, a mediation analysis was performed, using the mediate function from the mediation package. This function allows to investigate the direct and indirect effects of the independent variables, and their interaction on the belief in disinformation and the mediating role of perceived source credibility (hypothesis 5). Bootstrapping was employed to improve the accuracy of the estimates, using 2000 simulations to generate bias-corrected and accelerated confidence intervals.

Results

Descriptive Statistics

Mean scores were calculated for the mediator and the outcome variable. The perceived source credibility for the whole sample had a mean of 3.66 (SD = 1.37). The belief in disinformation for the whole sample had a mean of 3.93 (SD = 1.20).

In addition, The mean scores were also calculated individually for each group, the results were as follows: For perceived source credibility per group, Group 1 (Blue Verification Tick and Mimicked Profile Visuals) had a mean of 4.61 (SD = 0.82), Group 2 (Blue Verification Tick and Neutral Profile Visuals) had a mean of 3.06 (SD = 1.12), Group 3 (No Blue Verification Tick and Mimicked Profile Visuals) had a mean of 4.17 (SD = 1.37), and Group 4 (Control Group) had a mean of 2.77 (SD = 1.26). For belief in disinformation per group, Group 1 had a mean of 4.15 (SD = 1.01), Group 2 had a mean of 3.81 (SD = 1.37), Group 3 had a mean of 3.94 (SD = 1.24), and Group 4 had a mean of 3.82 (SD = 1.19). The corresponding boxplots for belief in disinformation and perceived source credibility per group can be seen in Appendix F, Figure F1 and Figure F2.

Correlations

Pearson's correlation coefficients were calculated to estimate bivariate relationships which are presented in Table 1 and 2. The strongest positive correlations were found between mimicked profile visuals and perceived source credibility ($r(110) = .54$, $p < .01$), perceived source credibility and belief in disinformation ($r(110) = .50$, $p < .01$), and between TikTok as a primary platform for short videos and short video consumption frequency ($r(110) = .43$, $p < .01$). In addition, weak positive correlation was found for TikTok as a primary platform and belief in disinformation ($r(110) = .27$, $p < .05$). Further, weak negative correlations could be

found for YouTube Shorts as a primary platform for short videos and short video consumption frequency ($r(110) = -.28$, $p < .05$), and YouTube Shorts as a primary platform for short videos and belief in disinformation ($r(110) = -.21$, $p < .05$).

Table 1

Correlations of Independent, Depended, and Demographic Variables

		1.	2.	3.	4.	5.	6.	7.
1.	Blue Tick	-						
2.	Mimicked Profile Visuals	-.02	-					
3.	Perceived Source Credibility	.13	.54**	-				
4.	Belief in Disinformation	.04	.10	.50**	-			
5.	Age	-.02	-.16	-.18	-.11	-		
6.	Short Video Consumption Frequency	.11	-.09	.03	.14	-.18	-	
7.	Education	-.03	-.16	-.11	.15	.27*	.04	-

*Note. **p < .01. significant at the 0.01 level. *p < .05. significant at the 0.05 level.*

Table 2

Correlations of Primary Short Video Platforms, and the Dependent and Demographic variables.

Primary Short Video Platform	Perceived Source Credibility	Belief in Disinformation	Age	Short Video Consumption Frequency	Education
Facebook Stories	-.18	-.11	.07	-.08	-0.02
Instagram Reels	.06	.02	-.08	.04	.01
Other (Specify)	-.15	-.19	.10	-.12	.08
Snapchat Spotlight	.04	.19	.02	-.14	.11
TikTok	.14	.27**	-.07	.43**	-.01
YouTube Shorts	-.09	-.21*	.08	-.28**	-.07

*Note. **p < .01. significant at the 0.01 level. *p < .05. significant at the 0.05 level.*

Inferential Statistics

The assumptions necessary for linear regression analysis were tested using various diagnostic plots and statistical tests. For both linear models, the Durbin-Watson test indicated the independence of observations. Specifically, for the mediator model, the Durbin-Watson statistic was 2.171 (p = .374), and for the outcome model, it was 2.016 (p = .922), suggesting no significant autocorrelation in the residuals.

Linearity of relationships was assessed using residual plots (see Appendix G, Figure G1 and Figure G2). The visual inspection of these plots suggested that the assumption of linearity was met for both models. Homoscedasticity was tested using the Breusch-Pagan test. The results indicated homoscedasticity for the outcome model (BP = 0.511, p = .972), but suggested a potential issue for the mediator model (BP = 7.918, p = .048), indicating some heteroscedasticity.

Multicollinearity was evaluated using Variance Inflation Factors (VIF). For the mediator model, the VIF values were 1.00 for mimicked profile visuals, 1.00 for the blue tick, and 1.00 for the interaction term. For the outcome model, the VIF values were 1.43 for mimicked profile visuals, 1.03 for the blue tick, and 1.00 for the interaction between them. Perceived source credibility resulted in an VIF value of 1.45. All VIF values were well below the commonly used threshold of 10, indicating no multicollinearity issues.

The normal distribution of errors was assessed using the Shapiro-Wilk test. For the mediator model, the Shapiro-Wilk test yielded W = 0.971, p = .014, indicating a slight deviation from normality. However, for the outcome model, the Shapiro-Wilk test indicated that the residuals were normally distributed (W = 0.990, p = .542). In summary, the diagnostic tests and plots indicated that the assumptions for linear regression were adequately met for both the mediator and outcome models, with a slight deviation from normality in the mediator model's residuals and a potential issue with homoscedasticity.

Visual Cues on Perceived Source Credibility

The initial phase of analysing the conceptualized moderated mediation model involved conducting two multiple linear regressions. First, a multiple regression analysis was carried out to examine the effects of the blue tick, mimicked profile visuals, and their interaction on perceived source credibility. The overall model was statistically significant (F (3,108) = 16.19, p

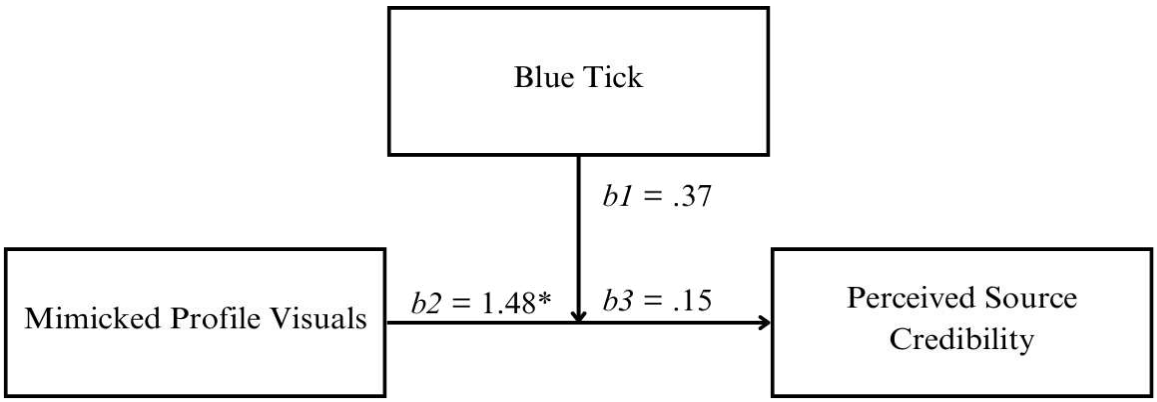
< .001), indicating that approximately 31% of the variance in perceived source credibility could be explained by the predictors (R^2 =.31).

The intercept of the model was b = 3.66 (SE = 0.11), t (108) = 33.55, p < .001, indicating the expected value of perceived source credibility when all predictors are zero. The residual standard error of the model was 1.155, with 108 degrees of freedom, indicating the average amount by which the observed values of perceived source credibility deviate from the predicted values.

The main effect of mimicked profile visuals was significant (b = 1.48 (SE = 0.22), t (108) = 6.78, p <.001), suggesting that making use of profile visuals that mimic those of legitimate news organisation, is associated with a 1.48 increase in perceived source credibility, controlling for other variables. Further, the main effect of the blue tick did not show statistically significance, (b = 0.37 (SE = 0.22), t (108) = 1.68, p = .096). Also, the interaction effect between mimicked profile visuals and the blue tick was not significant, b = 0.15 (SE = 0.44), t (108) = 0.35, p = .728, suggesting that the combined effect of mimicking a news organisation and having a blue tick does not significantly influence perceived source credibility beyond their individual effects (see Figure 2 for a visual representation).

Figure 2

Visual Representation of the Mediator Model Analysis



b1: direct effect of blue tick on perceived source credibility
b2: direct effect of mimicked profile visuals on perceived source credibility
b3: moderation effect of blue tick and mimicked profile visuals on perceived source credibility

*Note. **p < .01. significant at the 0.01 level. *p < .05. significant at the 0.05 level.*

Visual Cues and Perceived Source Credibility on Belief in Disinformation

Second, a multiple regression analysis was performed to investigate the effects of the blue tick, mimicked profile visuals, their combination, and perceived source credibility on belief in disinformation. The overall model also was statistically significant (F (4,107) = 10.94, p < .001), explaining approximately 29% of the variance in belief in disinformation (R^2 = .29). The intercept of the model was statistically significant (b = 1.90 (SE = 0.33), t (107) = 5.78, p < .001). The residual standard error of the model was 1.031, with 107 degrees of freedom, indicating the average deviation of observed belief in disinformation from the predicted values.

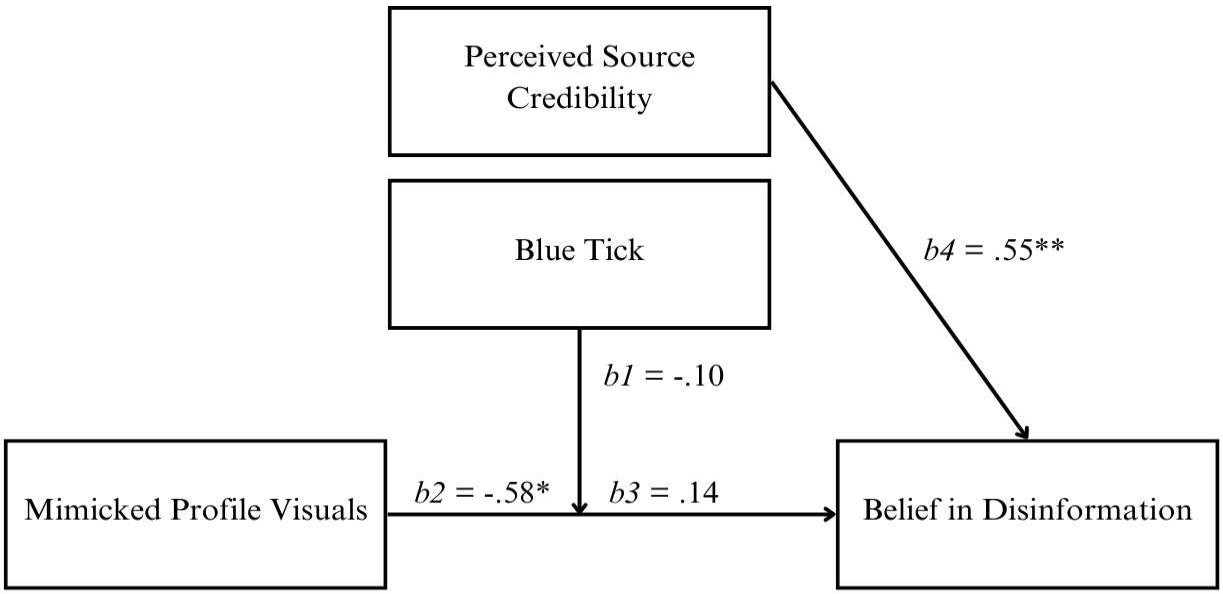
For the main effect of mimicked profile visuals, a significant result was found (b = −0.58 (SE = 0.23), t (107) = −2.49, p = .014), suggesting that mimicked profile visuals are associated with a 0.58 decrease in belief in disinformation, when controlled for other variables. The main

effect of the blue tick was not statistically significant, (b = −0.10 (SE = 0.20), t (107) = −0.52, p = .606), as well as the interaction of blue tick and mimicked profile visuals (b = 0.14 (SE = 0.39), t (107) = 0.35, p = .730). These findings highlight that having blue tick alone does not significantly affect belief in disinformation, as well as its interaction with mimicked profile visuals. Moreover, the main effect of perceived source credibility was significant (b = 0.55 (SE = 0.09), t (107) = 6.46, p < .001), conveying that higher perceived source credibility is associated with a 0.55 increase in belief in disinformation (see Figure 3 for a visual representation).

In summary, this first regression analysis revealed mixed results for the hypotheses. The presence of the blue tick did not significantly increase perceived source credibility; thus, *H1* must be rejected. However, the use of profile visuals that mimic those of legitimate news organisations significantly increased perceived source credibility, so *H2* can be accepted. However, the interaction between both independent variables was not statistically significant, indicating that the combination of both factors did not result in the highest perceived credibility. Therefore, *H3* must be rejected. Following that, the second regression analysis showed that perceived source credibility significantly increased belief in disinformation, consequently *H4* is accepted.

Figure 3

Visual Representation of the Outcome Model Analysis



b1: direct effect of blue tick on belief in disinformation
b2: direct effect of mimicked profile visuals on belief in disinformation
b3: moderation effect of blue tick and mimicked profile visuals on belief in disinformation
b4: direct effect of perceived source credibility on belief in disinformation

*Note. **p < .01. significant at the 0.01 level. *p < .05. significant at the 0.05 level.*

Mediation Effect

To investigate how the effects of the independent factors (blue verification tick, mimicked profile visuals, and their interaction) and belief in the disinformation is mediated by perceived source credibility, a causal mediation analysis was performed using nonparametric bootstrap confidence intervals with the BCa method. The sample size used in the analysis was 112, and the number of simulations performed was 2000.

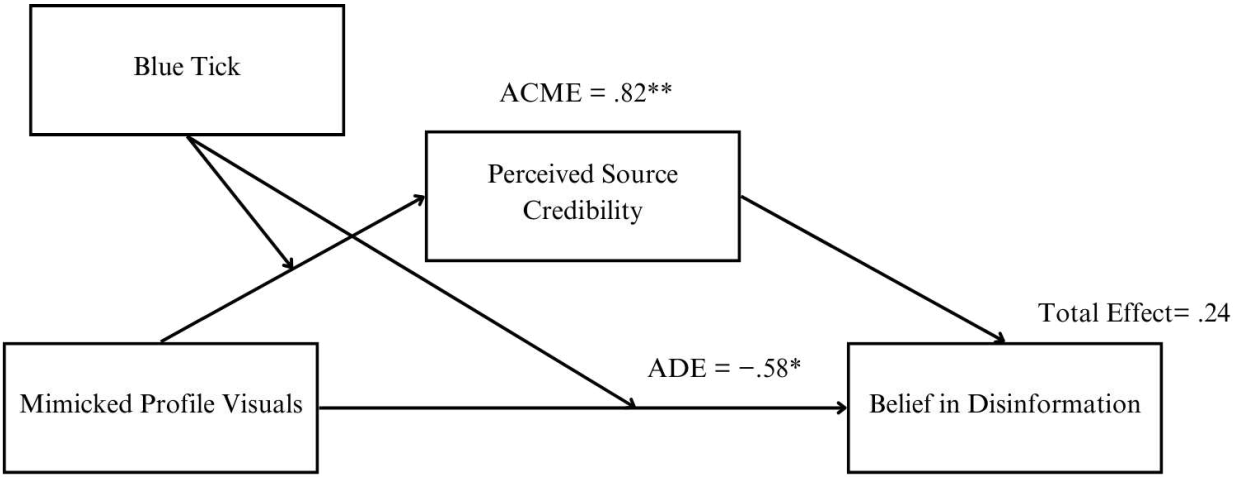
The analysis revealed that the Average Causal Mediation Effect (ACME) is significant (b = 0.821, 95% CI [0.487, 1.26], $p < .001$). This finding indicates that changes in perceived source

credibility, influenced by the independent factors, significantly affected belief in the disinformation. Additionally, the Average Direct Effect (ADE) was also significant ($b = -0.580$, 95% CI [-1.029, -0.13], $p = .01$), further implying that there was also a direct effect of the independent factors on belief in disinformation, not entirely mediated by perceived credibility. This direct effect was negative, indicating that other pathways might inversely affect belief in disinformation. However, the total effect of the moderated mediation model was not statistically significant ($b = 0.241$, 95% CI [-0.183, 0.68], $p = .31$). This suggested that the combined direct and indirect effects of the independent variables did not significantly influence belief in disinformation (see Figure 4).

Ultimately, while the mediation pathway through perceived credibility was statistically significant, the total effect was not significant. This means that perceived credibility played a crucial role in mediating the relationship between the independent factors and belief in disinformation, but other factors, like the significant negative direct effect, also contribute to the outcome. Therefore, *H5* can only be partially accepted.

Figure 4

Visual Representation of the Mediation Analysis



ACME: Average Causal Mediated Effect
ADE: Avarage Direct Effect
Total Effect: ADE + ACME

*Note. **p < .01. significant at the 0.01 level. *p < .05. significant at the 0.05 level.*

Discussion

The aim of this study was to investigate how the use of a blue tick and mimicked profile visuals on short video platforms influence perceived source credibility and belief in disinformation, among Western European young adults. In detail, it was analysed how the presence of the blue tick, mimicked profile visuals, and their interaction affect perceived source credibility. Also, the main effect of perceived source credibility on belief in disinformation was investigated. Lastly, it was tested if the perceived credibility of the source mediates the relationship between both visual cues and belief disinformation. The conducted experiment and data analysis effectively answered and tested the proposed research question and hypotheses to a great extent.

Analysing the dataset revealed mixed findings. The use of mimicked profile visuals significantly increased perceived source credibility, meaning that accounts that mimic legitimate news organisations by choosing similar usernames and profile pictures, increased the perceived credibility participants associated with the source. However, no significant direct effect was found for the blue tick on perceived source credibility, nor the interaction effect of both visual cues. Further, the regression analysis showed that perceived source credibility significantly increased the belief in disinformation, meaning that the more credible a source appeared, the more participants believed in the presented disinformation. The mediation analysis revealed interesting findings: despite a significant mediation effect, no significant total effect could be found. Notably, a significant negative direct effect of the visual cues and their interaction on belief could be observed, suggesting the relationship to be a competitive partial mediation.

Visual Cues on Perceived Source Credibility

Regarding perceived source credibility, this study found that the use of mimicked profile visuals indeed increased the perceived source credibility of disinformation videos, highlighting

the danger of this disguise technique. These visuals exploit the trust users place in reputable news organisations (Gasimova, 2023; Lepipas et al., 2024; Pérez-Escoda et al., 2021). When paired with algorithmic prioritisation on social media platforms, this manipulation can lead to wider dissemination of false information, thereby influencing public opinion and behaviour, and contributing to societal discord (Saurwein & Spencer-Smith, 2020; Nazari et al., 2022; Brashier & Schacter, 2020).

While social media platforms recognise the danger of such fake accounts, their security systems do not manage to reduce the number of such accounts to zero. For instance, Instagram and TikTok both use a multi-layered detection system to act against such accounts (Meta. n.d. -d; TikTok, 2024). They count on algorithms, their own employees, and third-party fact-checking companies. In addition, an important component is the platforms own community, which can report false accounts themselves. Nevertheless, despite all their efforts, fake accounts are still omnipresent on both platforms today (Lepipas et al., 2024).

On the other hand, the blue tick was not found to have a significant influence on perceived source credibility. This could be explained by the findings of Chang and colleagues (2021) and Lee and Park (2022), suggesting that the blue tick rather increases the perceived celebrity status. As the blue tick was presented alongside generic profiles to isolate its effects, the observed statistical non-significance could potentially be attributed to this combination. In addition, the non-significance could also be related to the fact that the blue tick can now be purchased on some social media platforms (Meta, n.d. -a; X Corp., n.d.). The crisis that X encountered after introducing this feature reached a large audience (Paul, 2023), and potentially weakened the credibility associated with the blue tick.

Also, the interaction effect of mimicked profile visuals and the blue tick on perceived source credibility was not significant. Even though the combination of profile visuals and the blue tick are visually more similar to a real news channel than if one of the visual cues was missing, this did not lead to a significant additional effect. Again, this may be attributed to the purchasable blue tick feature on twitter and the resulting fake channels mimicking legitimate news organisations (Lepipas et al., 2024). Ultimately, this study suggests that the blue tick is no longer suitable as a visual cue to indicate source credibility.

Visual Cues and Perceived Source Credibility on Belief in Disinformation

Analysing the outcome model revealed how both visual cues, their interaction and perceived source credibility affect belief in the presented disinformation. In this study, the perceived credibility of the source significantly increased belief in the viewed disinformation, supporting the findings of Nadarevic et al. (2020) and highlighting its influence on belief. The blue tick, again, showed no significant direct effect, nor an interaction effect with mimicked profile visuals in this model, which once again underlines the described loss of its original meaning.

Interestingly, the effect of mimicked profile visuals on the belief in disinformation was found to be significant but negative. This finding indicates that participants had less belief in the presented messages when mimicked profile visuals were used. This could be attributed to the fact that young adults generally are more careful when it comes to believing information on social media (Nazari et al., 2022; Pérez-Escoda et al., 2021). They are often more sceptical on social media and have developed better digital literacy skills, which enable them to critically evaluate online sources.

Additionally, participants may have perceived a discrepancy between the professional appearance of the profile and the content of the message. If they have prior knowledge about the topic, or if the content seems questionable, they might recognize the information as obviously false or dubious (Greene & Murphy, 2020). This recognition may increase their distrust, thus reducing the direct belief in disinformation (Mayo, 2024).

Perceived Source Credibility as a Mediator

Investigating the mediation effect showed that the indirect effect of the visual cues on belief in disinformation, mediated by perceived source credibility, was significant. This finding underscores the important role of perceived source credibility as a mediator for belief. Additionally, analysing the model also showed a significant direct effect of mimicked profile visuals on belief in disinformation, and confirmed the prior detected negative direct effect.

Despite the significant direct- and mediation effects, the total effect of the analysed moderated mediation model was not significant. This could be due to the opposite directions of effects. While the use of mimicked profile visuals increased belief in disinformation significantly through the mediator of perceived source credibility, the direct effect reduced the total effect to the extent that significance may no longer be detected. This again, could be attributed to the increased media literacy and scepsis towards information on social media of young adults today (Nazari et al., 2022; Pérez-Escoda et al., 2021).

Another potential explanation is that although mimicked profile visuals increase the perceived source credibility, other potential influences and factors between those visuals and belief cancel out its mediated effect. These findings highlight that the relationship between the analysed variables is complex and might include other factors influencing the belief-making of young adults on short video platforms.

Exploratory Correlations with Main Platform

In addition to the performed analysis, an exploratory correlation analysis was run to investigate potential relationships between the demographic measures and the variables.

The analysis revealed a positive correlation between TikTok usage and the total short video consumption, suggesting that individuals who engage more frequently with TikTok tend to consume a higher volume of short video content overall. Conversely, there is a negative correlation between YouTube Shorts as a main platform and total short video consumption, indicating that as users on YouTube Shorts, spent less time with consuming short videos.

Also, a positive correlation between TikTok usage and belief in disinformation was found, suggesting that increased engagement with TikTok is associated with higher levels of belief in disinformation. In contrast, a negative correlation between YouTube Shorts and belief in disinformation indicated that YouTube Shorts viewers are associated with lower levels of belief in disinformation.

These correlations provide a nuanced view of how platform usage patterns relate to media consumption behaviours and beliefs. The differences between TikTok and YouTube Shorts are particularly striking, which could be attributed to the platforms' different recommendation algorithms and different user demographics.

Limitations and Recommendations

In interpreting the findings of this study, several limitations should be considered. Firstly, the sample size consisted of 112 participants, which may restrict the generalisability of the results to larger populations. A more extensive and diverse sample would enhance the robustness and applicability of the conclusions drawn from the research. Additionally, there were slight

deviations noted from normality in the residuals of the mediator model, along with potential issues related to homoscedasticity.

Moreover, while the study aimed to replicate a short video platform environment through a simulated feed, there remains room for improvement in its accuracy. Features such as the ability to scroll and rewatch content, an accessible comment section, and likes, integral to user interactions on actual platforms, could be better incorporated to enhance the realism of future simulations.

Moving forward, several recommendations can be proposed based on the study's outcomes and identified limitations. Firstly, investigating the direct negative impact of mimicked profile visuals on belief in disinformation could provide valuable insights. Specifically, it should be investigated which other variables have an influence on the connection between mimicked profile visuals and beliefs in disinformation, such as media literacy, or critical thinking skills.

Additionally, considering cultural and age differences in the interpretation of both visual cues and their impact on belief in disinformation represents another area ripe for exploration. While this study has shown that young adults from Western Europe are sceptical towards believing information posted by accounts with mimicked profile visuals, it may be different for other target groups.

Lastly, future research should delve deeper into the underlying reasons behind the correlations found between main platform, total consumption, and beliefs. Factors such as user demographics and platform algorithms should be investigated to better understand their implications for belief formation and media consumption on short video platforms.

Furthermore, the results regarding the blue tick indicated that the symbol does no longer represent an indicator for credibility. Therefore, it is highly recommended for short video

platform organisations to introduce additional verification symbols exclusively for legitimate news channels on social media platforms. These symbols should be awarded only after undergoing rigorous verification processes, thereby aiding users in distinguishing fact-checked sources from potentially misleading or false information. As news organisations more frequently provide content on these platforms to reach a young audience, the platforms should clearly indicate the type of source being presented. While this may not reduce the prevalence of fake accounts, a recognized symbol of authenticity could aid users in identifying such accounts.

Addressing these limitations and recommendations for future research can advance the understanding of how disinformation on short video platforms shapes beliefs. This knowledge is crucial for developing effective strategies to mitigate the spread of disinformation and its impact. Also, implementing more rigorous verification processes on short video platforms should be considered by the associated organisations, to protect users from misleading content.

Conclusion

This study explored the impact of visual cues on the belief in disinformation on short video platforms, specifically focusing on the presence of the blue verification tick and mimicked profile visuals. The findings indicate that while blue verification ticks have been perceived as indicators of credibility in previous research, their effectiveness has diminished, potentially due to monetisation practices that allow users to purchase them.

Moreover, the analysis demonstrated that mimicked profile visuals significantly influence users' belief in disinformation by increasing perceived source credibility, highlighting the dangerous impact of employing such visuals. However, the direct effect of mimicked profile visuals on belief in disinformation was found to be negative, which could potentially be

attributed to the increased media literacy of young adults. This underscores the need for a deeper understanding of the variables influencing belief in disinformation.

The study also revealed distinct differences between TikTok and YouTube Shorts in terms of user engagement and belief in disinformation. TikTok users, who also engage more frequently with the platform, tend to have higher levels of belief in disinformation, whereas YouTube Shorts users consume less and are less likely to hold such beliefs. These differences could be attributed to the unique algorithms or user demographics of each platform.

In conclusion, the study highlights the significant role of visual cues in shaping perceived source credibility and belief in disinformation on short video platforms. Understanding these dynamics is crucial for developing proactive strategies to combat the spread of disinformation and preserve the trust in online information in the digital age.

References

Aïmeur, E., Amri, S. & Brassard, G. (2023). Fake news, disinformation and misinformation in social media: a review. *Social Network Analysis And Mining*, *13*(1). https://doi.org/10.1007/s13278-023-01028-5

Alonso-López, N., Bautista, P. S., & Giacomelli, F. (2021). Beyond challenges and viral dance moves : TikTok as a vehicle for disinformation and fact-checking in Spain, Portugal, Brazil, and the USA. *Anàlisi*, *64*, 65. https://doi.org/10.5565/rev/analisi.3411

Altoe, F., Moreira, C., Pinto, H. S., & Jorge, J. A. (2024). Online Fake News Opinion spread and Belief Change: A Systematic review. *Human Behavior and Emerging Technologies*, *2024*, 1–20. https://doi.org/10.1155/2024/1069670

Arguedas, A. a. R., Badrinathan, S., Mont'Alverne, C., Toff, B., Fletcher, R., & Nielsen, R. K. (2023). Shortcuts to trust: Relying on cues to judge online news from unfamiliar sources on digital platforms. *Journalism*. https://doi.org/10.1177/14648849231194485

Barsaiyan, S., & Sijoria, C. (2021). Twitter Blue Tick - A Study of its Impact on Society. *Indian Journal of Marketing*, *51*(11), 38. https://doi.org/10.17010/ijom/2021/v51/i11/159441

Bastick, Z. (2021). Would you notice if fake news changed your behavior? An experiment on the unconscious effects of disinformation. *Computers in Human Behavior*, *116*, 106633. https://doi.org/10.1016/j.chb.2020.106633

Bhandari, P. (2021, March 12). *Between-Subjects Design | Examples, Pros & Cons*. scribbr.com. Retrieved June 28, 2024, from https://www.scribbr.com/methodology/between-subjects-design/

Brashier, N. M., & Schacter, D. L. (2020). Aging in an era of fake news. *Current Directions in Psychological Science*, *29*(3), 316–323. https://doi.org/10.1177/0963721420915872

Bundesregierung. (n.d.). *What is disinformation?* bundesregierung.de. Retrieved May 3, 2024, from https://www.bundesregierung.de/breg-de/schwerpunkte/umgang-mit-desinformation/disinformation-definition-1911048

Dan, V., Paris, B., Donovan, J. M., Hameleers, M., Roozenbeek, J., Van Der Linden, S., & Von Sikorski, C. (2021). Visual mis- and disinformation, social media, and democracy. *Journalism & Mass Communication Quarterly*, *98*(3), 641–664. https://doi.org/10.1177/10776990211035395

Daunt, K. L., Greer, D. A., Jin, H. S., & Orpen, I. (2023). Who believes political fake news? The role of conspiracy mentality, patriotism, perceived threat to freedom, media literacy and concern for disinformation. *Internet Research*, *33*(5), 1849–1870. https://doi.org/10.1108/intr-07-2022-0565

Dimitroyannis, R., Fenton, D., Cho, S., Nordgren, R., Pinto, J. M., & Roxbury, C. R. (2024). A social media quality review of popular sinusitis videos on TikTok. *Otolaryngology and Head and Neck Surgery/Otolaryngology--head and Neck Surgery*. https://doi.org/10.1002/ohn.688

Dumas, J. E., & Stough, R. A. (2022). When influencers are not very influential: The negative effects of social media verification. *Journal of Consumer Behaviour*, *21*(3), 614–624. https://doi.org/10.1002/cb.2039

Ecker, U. K. H., Lewandowsky, S., Cook, J., Schmid, P., Fazio, L. K., Brashier, N. M., Kendeou, P., Vraga, E. K., & Amazeen, M. A. (2022). The psychological drivers of misinformation belief and its resistance to correction. *Nature Reviews Psychology*, *1*(1), 13–29. https://doi.org/10.1038/s44159-021-00006-y

European Commission. (2022). *The Strengthened Code of Practice on Disinformation*. Retrieved May 3, 2024, from https://ec.europa.eu/newsroom/dae/redirection/document/87585

European Parliament. (2023). *Media & News Survey 2023* (EB-ID: FL012EP). https://europa.eu/eurobarometer/api/deliverable/download/file?deliverableId=89601

Gasimova, C. (2023). Domain name and trademark infringement (Cybersquatting) in the digital age. *Social Science Research Network*. https://doi.org/10.2139/ssrn.4344891

Google. (n.d.). *Verification badges on channels - YouTube Help*. google.com. Retrieved May 9, 2024, from https://support.google.com/youtube/answer/3046484?hl=en

Greene, C. M., & Murphy, G. (2020). Individual differences in susceptibility to false memories for COVID-19 fake news. *Cognitive Research*, *5*(1). https://doi.org/10.1186/s41235-020-00262-1

Hanley, M., & Munoriyarwa, A. (2021). Fake news. In *De Gruyter eBooks* (pp. 157–176). https://doi.org/10.1515/9783110740202-009

Howarth, J. (2024, January 12). TikTok User Age, Gender, & Demographics (2024). *Exploding Topics*. https://explodingtopics.com/blog/tiktok-demographics

Ionescu, C. G., & Licu, M. (2023). Are TikTok algorithms influencing users' Self-Perceived identities and personal values? A mini review. *Social Sciences*, *12*(8), 465. https://doi.org/10.3390/socsci12080465

Jiang, C. (2020). Film and Television Communication in the New Media Era: Content Innovation in the Age of Short Videos. *Highlights in Art and Design*, *Vol. 4*(No. 3), ISSN: 2957-8787. https://drpress.org/ojs/index.php/hiaad/article/download/15709/15244

Karalis, M. (2024). Fake leads, defamation and destabilization: how online disinformation continues to impact Russia's invasion of Ukraine. *Intelligence and National Security*, 1–10. https://doi.org/10.1080/02684527.2024.2329418

Karlsen, G. H. (2019). Divide and rule: ten lessons about Russian political influence activities in Europe. *Palgrave Communications*, *5*(1). https://doi.org/10.1057/s41599-019-0227-8

Koç, B. (2023). *The role of user interactions in social media on recommendation algorithms: Evaluation of TikTok's personalization practices from user's perspective* (By Istanbul University) [Thesis, ISTANBUL UNIVERSITY]. https://doi.org/10.13140/RG.2.2.34692.71040

Kohlmann, T. (2023, February 21). Abo-Modell gegen Meta-Schwäche. *dw.com*. Retrieved May 10, 2024, from https://www.dw.com/de/abo-modell-soll-meta-schw%C3%A4che-wettmachen/a-64776856

Koller, T., & Grabner, H. (2022). Who wants to be a Click-Millionaire? On the Influence of Thumbnails and Captions. *2022 26th International Conference on Pattern Recognition (ICPR)*. https://doi.org/10.1109/icpr56361.2022.9956202

Lan, D. H., & Tung, T. M. (2024). Exploring fake news awareness and trust in the age of social media among university student TikTok users. *Cogent Social Sciences*, *10*(1). https://doi.org/10.1080/23311886.2024.2302216

Landreville, K. D., & Niles, C. (2019). "And that's a fact!": The roles of political ideology, PSRs, and perceived source credibility in estimating factual content in partisan news. *Journal of Broadcasting & Electronic Media*, *63*(2), 177–194. https://doi.org/10.1080/08838151.2019.1622339

Lateiner, D. (2021). “Bad News” in Herodotos and Thoukydides: misinformation, disinformation, and propaganda. *Journal of Ancient History*, *9*(1), 53–99. https://doi.org/10.1515/jah-2020-0005

Lepipas, A., Borovykh, A., & Demetriou, S. (2024). Username squatting on online social networks: A study on X. *arXiv (Cornell University)*. https://doi.org/10.48550/arxiv.2401.09209

Li, Y., & Xie, Y. (2019). Is a picture worth a thousand words? An empirical study of image content and social media engagement. *Journal of Marketing Research*, *57*(1), 1–19. https://doi.org/10.1177/0022243719881113

Lukito, J. (2019). Coordinating a Multi-Platform Disinformation Campaign: Internet Research Agency activity on three U.S. social media platforms, 2015 to 2017. *Political Communication*, *37*(2), 238–255. https://doi.org/10.1080/10584609.2019.1661889

Ma, X., Sun, Y., Guo, X., Lai, K., & Vogel, D. (2021). Understanding users’ negative responses to recommendation algorithms in short-video platforms: a perspective based on the Stressor-Strain-Outcome (SSO) framework. *EM*, *32*(1), 41–58. https://doi.org/10.1007/s12525-021-00488-x

Mac, R., Mullin, B., Conger, K., & Isaac, M. (2022, November). A Verifiable Mess: Twitter Users Create Havoc by Impersonating Brands. *The New York Times*. Retrieved May 10, 2024, from https://www.nytimes.com/2022/11/11/technology/twitter-blue-fake-accounts.html

Mayo, R. (2024). Trust or distrust? Neither! The right mindset for confronting disinformation. *Current Opinion in Psychology*, *56*, 101779. https://doi.org/10.1016/j.copsyc.2023.101779

Meta. (n.d.-a). *Become Meta Verified*. meta.com. Retrieved April 30, 2024, from https://about.meta.com/technologies/meta-verified/

Meta. (n.d.-b). Request a verified badge for your Instagram profile. instagram.com. Retrieved May 9, 2024, from https://help.instagram.com/398038890351915/?helpref=platform_switcher&cms_platform=android-app&cms_id=398038890351915

Meta. (n.d.-c). *Update Instagram profile information such as your name, username and email address*. instagram.com. Retrieved May 14, 2024, from https://help.instagram.com/583107688369069

Meta. (n.d. -d). *Impersonation accounts*. Help.Instagram. Retrieved June 10, 2024, from https://help.instagram.com/446663175382270?cms_id=446663175382270

Mitchell, A., Simmons, K., Matsa, K. E., Silver, L., Shearer, E., Johnson, C., Walker, M., & Taylor, K. (2020, August 28). *News media in Western Europe: Populist views divide public opinion*. Pew Research Center's Journalism Project. https://www.pewresearch.org/journalism/2018/05/14/many-western-europeans-get-news-via-social-media-but-in-some-countries-substantial-minorities-do-not-pay-attention-to-the-source/

Nadarevic, L., Reber, R., Helmecke, A. J., & Köse, D. (2020). Perceived truth of statements and simulated social media postings: an experimental investigation of source credibility, repeated exposure, and presentation format. *Cognitive Research*, *5*(1). https://doi.org/10.1186/s41235-020-00251-4

Nazari, Z., Oruji, M., & Jamali, H. R. (2022). News consumption and behavior of young adults and the issue of fake news. *Journal of Information Science Theory and Practice*, *10*(2), 1-16. https://doi.org/10.1633/JISTaP.2022.10.2.1

Newman, N. (2022). How publishers are learning to create and distribute news on TikTok. Reuters Institute for the Study of Journalism. https://doi.org/10.60625/risj-gfyx-3v66

Paul, K. (2023, April 25). Fake accounts, chaos and few sign-ups: the first day of Twitter Blue was messy. *The Guardian*. https://www.theguardian.com/technology/2023/apr/21/elon-musk-twitter-blue-rollout

Pereira, A., Harris, E., & Van Bavel, J. J. (2021). Identity concerns drive belief: The impact of partisan identity on the belief and dissemination of true and false news. *Group Processes & Intergroup Relations/Group Processes and Intergroup Relations*, *26*(1), 24–47. https://doi.org/10.1177/13684302211030004

Pérez-Escoda, A., Pedrero-Esteban, L. M., Rubio-Romero, J., & Narros, C. J. (2021). Fake news reaching young people on social networks: Distrust challenging media literacy. *Publications*, *9*(2), 24. https://doi.org/10.3390/publications9020024

Pilditch, T. D., Madsen, J. K., & Custers, R. (2020). False prophets and Cassandra's curse: The role of credibility in belief updating. *Acta Psychologica*, *202*, 102956. https://doi.org/10.1016/j.actpsy.2019.102956

Posetti, J., & Matthews, A. (2018). A short guide to the history of 'fake news' and disinformation. *International Center for Journalists*, *7*(2018), 2018-07. https://www.icfj.org/sites/default/files/2018-07/A%20Short%20Guide%20to%20History%20of%20Fake%20News%20and%20Disinformation_ICFJ%20Final.pdf

Qin, Y., Omar, B., & Musetti, A. (2022). The addiction behavior of short-form video app TikTok: The information quality and system quality perspective. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.932805

Sardarizadeh, S. (2023, July 8). Twitter Blue accounts fuel Ukraine War misinformation. *BBC News*. Retrieved May 10, 2024, from https://www.bbc.com/news/world-europe-66113460

Saurwein, F. & Spencer-Smith, C. (2020). Combating Disinformation on Social Media: Multilevel Governance and Distributed Accountability in Europe. *Digital Journalism*, *8*(6), 820–841. https://doi.org/10.1080/21670811.2020.1765401

Shen, Z., Tan, S., & Pritchard, M. (2022). Understanding the effects of visual cueing on social media engagement with YouTube educational videos. *IEEE Transactions on Professional Communication*, *65*(2), 337–350. https://doi.org/10.1109/tpc.2022.3156225

Shewale, R. (2024, March 2). *Instagram Reels Statistics In 2024 (Engagement & Trends)*. DemandSage. https://www.demandsage.com/instagram-reel-statistics/

Sinnott, R., & Wang, Z. (2021). Linking user accounts across social media platforms. In *ACM International Conference Proceeding Series*. https://doi.org/10.1145/3492324.3494157

Soares, F. B., Gruzd, A., & Mai, P. (2023). Falling for Russian Propaganda: Understanding the Factors that Contribute to Belief in Pro-Kremlin Disinformation on Social Media. Social Media + Society, 9(4). https://doi.org/10.1177/20563051231220330

Statista. (2023, August 25). *Instagram: age distribution of global audiences 2023 | Statista*. https://www.statista.com/statistics/325587/instagram-global-age-group/

Statista. (2024a, February 1). *TikTok: distribution of global audiences 2024, by age and gender*. https://www.statista.com/statistics/1299771/tiktok-global-user-age-distribution/

Swart, J., & Broersma, M. (2021). The trust Gap: Young people's tactics for assessing the reliability of political news. *The International Journal of Press/Politics*, *27*(2), 396–416. https://doi.org/10.1177/19401612211006696

TikTok. (2024). *Combating harmful misinformation | TikTok*. Retrieved June 10, 2024, from https://www.tiktok.com/transparency/en-us/combating-misinformation/

TikTok. (n.d.-a). *Adding a profile photo or video | TikTok Help Center*. tiktok.com. Retrieved May 14, 2024, from https://support.tiktok.com/en/getting-started/setting-up-your-profile/adding-a-profile-photo-or-video

TikTok. (n.d.-b). *Verified accounts on TikTok | TikTok Help Center*. Retrieved May 9, 2024, from https://support.tiktok.com/en/using-tiktok/growing-your-audience/how-to-tell-if-an-account-is-verified-on-tiktok

Traberg, C. S., & Van Der Linden, S. (2022). Birds of a feather are persuaded together: Perceived source credibility mediates the effect of political bias on misinformation susceptibility. *Personality and Individual Differences*, *185*, 111269. https://doi.org/10.1016/j.paid.2021.111269

Vu, H. T., & Chen, Y. (2023). What influences audience susceptibility to fake health news: An experimental study using a dual model of information processing in credibility assessment. *Health Communication*, 1–14. https://doi.org/10.1080/10410236.2023.2206177

Wang, L., Guo, Z., Wang, Y., Cui, Z., Liu, S., & De Melo, G. (2018). Social Media vs. News Media: Analyzing Real-World Events from Different Perspectives. In *Lecture notes in computer science* (pp. 471–479). https://doi.org/10.1007/978-3-319-98812-2_43

X Corp. (n.d.). *X Verification requirements - how to get the blue check*. Twitter.com. Retrieved April 30, 2024, from https://help.twitter.com/en/managing-your-account/about-x-verified-accounts

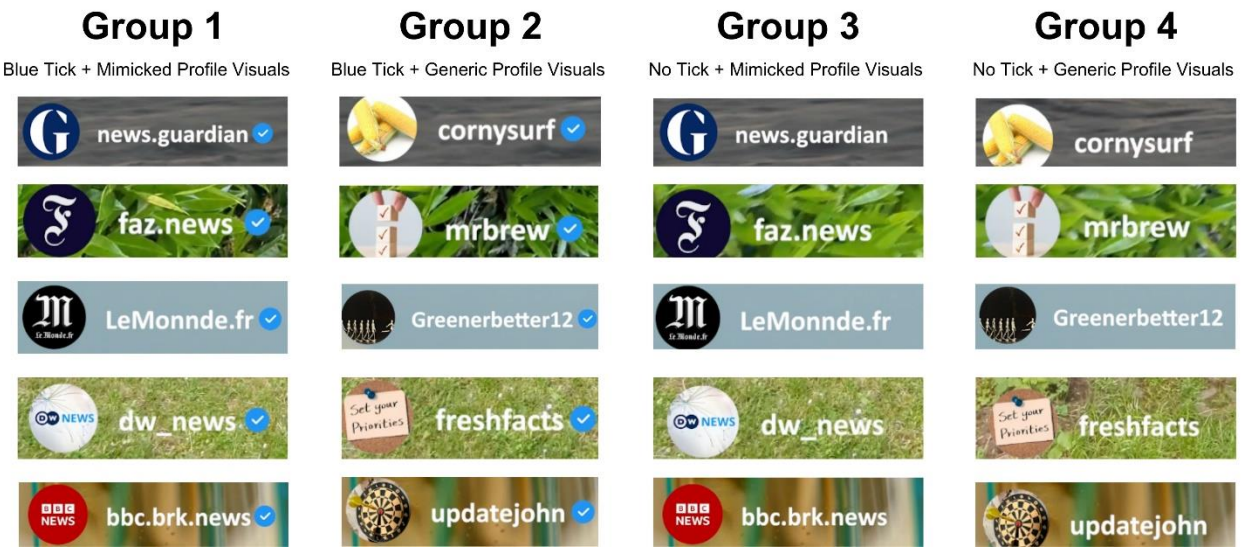
Zimmermann, F., & Kohring, M. (2020). Mistrust, disinforming news, and Vote Choice: A panel survey on the origins and consequences of believing disinformation in the 2017 German parliamentary election. *Political Communication*, *37*(2), 215–237. https://doi.org/10.1080/10584609.2019.1686095

Appendices

During the preparation of this work the author used ChatGPT 3.5 and 4.o to improve the reading flow. After using this tool, the author reviewed and edited the content as needed and takes full responsibility for the content of the work.

Appendix A

Figure A1 Manipulated Visual Cues



Appendix B

Table B1 Description of the sample

	Category	N	%
Gender	Female	44	39.3
	Male	65	58.0
	Third Gender/ Non-Binary	3	2.7
Country of Residence	Germany	69	61.6
	Netherlands	19	17.0
	Luxembourg	13	11.6
	UK	6	5.4
	Other	5	4.5
Education	Lower secondary education (up to age 16)	3	2.7
	Upper secondary education (up to age 18)	31	72.7
	Vocational education and training (VET)	6	5.4
	Some university but no degree	34	30.4
	Bachelor's degree (BA/BSc or equivalent)	25	22.3
	Master's degree (MA/MSc or equivalent)	11	9.8
	Doctoral degree (PhD or equivalent)	2	1.83
			,
Amount of Short Video	Less than 1 hour	51	45.5
Consumption per Day	1-2 hours	37	33.0
	2-3 hours	17	15.2
	3-4 hours	3	2.7
	More than 4 hours	4	3.6
Main Short Video Platform	TikTok	21	18.8
	Instagram Reels	49	43.8
	YouTube Shorts	32	28.6
	Snapchat Spotlight	3	2.7
	Other	7	6.3

Appendix C

Full Questionnaire

- Block: Welcome & Informed Consent (2 Questions)
- Standard: Demographics (6 Questions)
- BlockRandomizer: 1 - Evenly Present Elements
  - Group: 1
    - EmbeddedData
      - Group = 1
    - Block: Experiment Group 1 (3 Questions)
    - Block: Belief (DV) (1 Question)
    - Block: Perceived Source Credibility Group 1 (1 Question)
  - Group: 2
    - EmbeddedData
      - Group = 2
    - Block: Experiment Group 2 (3 Questions)
    - Block: Belief (DV) (1 Question)
    - Block: Perceived Source Credibility Group 2 (1 Question)
  - Group: 3
    - EmbeddedData
      - Group = 3
    - Block: Experiment Group 3 (3 Questions)

Block: Belief (DV) (1 Question)

Block: Perceived Source Credibility Group 3 (1 Question)

Group: 4

EmbeddedData

Group = 4

Block: Experiment Group 4 (3 Questions)

Block: Belief (DV) (1 Question)

Block: Perceived Source Credibility Group 4 (1 Question)

Standard: Debriefing (3 Questions)

Block: Debriefing (3 Questions)

Page Break

Start of Block: Welcome & Informed Consent

Welcome ***Dear participant,***

You are being invited to participate in an online research study on human behavior on short video platforms. This study is being conducted by Frederik Schultz, a student at the University of Twente, as part of my Bachelor's thesis in Communication Science, supervised by Dr. Shenja van der Graaf.

The purpose of this research study is to investigate how people interact with different types of content on short video platforms. As part of this study, you will view a short video feed for 5 minutes. Sound is recommended for the best experience. The entire survey will take a around 15 minutes to complete. This study is aimed at individuals aged 18 to 30.

Your participation is voluntary, and you can withdraw at any time without any consequences. There are no right or wrong answers, so please respond honestly. Your responses will be used for research and educational purposes only and will be deleted by September 30, 2024. The data collected will be accessible only to the researcher and the supervisor and will be anonymized to ensure your confidentiality.

There are no significant risks associated with participating in this study. All collected data will be securely stored and kept confidential. After the study, you will be fully debriefed about the purpose of the research.

Kind regards,

Frederik Schultz

Contact Information: If you have any questions or wish to withdraw from the study, please feel free to contact me at: Frederik Schultz: f.schultz@student.utwente.nl

Consent After reading the information above, do you understand and agree to participate in this study?

- o **Yes**, I understand and want to participate. (1)
- o **No**, I do not want to participate. (2)

Skip To: End of Survey If After reading the information above, do you understand and agree to participate in this study? = No, I do not want to participate.

End of Block: Welcome & Informed Consent

Start of Block: Demographics

Age How old are you?

▼ 17 or younger (1) ... 31 or older (15)

Gender How would you describe yourself?

- o female (1)
- o male (2)
- o third gender/non-binary (3)
- o prefer not to say (4)

Q26 Where do you currently live?

▼ Albania (1) ... Other (please specify) (52)

Education What is the highest level of education you have completed?

▼ Primary education (up to age 12) (1) ... Doctoral degree (PhD or equivalent) (8)

Consumption On average, how many hours per day do you spend watching short videos (e.g., TikTok, Instagram Reels, YouTube Shorts, etc.)?

- o Less than 1 hour (1)
- o 1-2 hours (2)
- o 2-3 hours (3)
- o 3-4 hours (4)
- o More than 4 hours (5)

Primary Platform What is your primary platform for watching short videos?

- o TikTok (1)
- o Instagram Reels (2)

- YouTube Shorts (3)
- Snapchat Spotlight (4)
- Facebook Stories (5)
- Other (please specify) (6) _____

End of Block: Demographics

Start of Block: Experiment Group 1

Instruction Group 1 Please ensure you watch the entire compilation of short videos before proceeding.

Please make use of sound and fullscreen mode.

Feed 1 .video-container { position: relative; width: 100%; padding-bottom: 56.25%; /* 16:9 aspect ratio */ } .video-container iframe { position: absolute; top: 0; left: 0; width: 100%; height: 100%; }

Timer 1 Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

End of Block: Experiment Group 1

Start of Block: Belief (DV)

Belief Measure Please indicate how much you **belief** the following statements:

	Strongly Disbelieve (1)	Disbelieve (2)	Somewhat Disbelieve (3)	Neutral (4)	Somewhat Believe (5)	Believe (6)	Strongly Believe (7)
"Surfer Anna Stavroula clinched victory at the 2024 Newcomer World Cup in	o	o	o	o	o	o	o

Australia." (1)							
"There is a rising trend on US TikTok where young people are consuming tea made from cherry laurel leaves." (2)	o	o	o	o	o	o	o
"Wind turbines in the Netherlands are estimated to result in	o	o	o	o	o	o	o

the deaths of around 350,000 birds per year." (3)							
"The deaths of 15 civilians occurred in Germany in 1972 when climate activists attacked a train transportin g nuclear waste." (4)	o	o	o	o	o	o	o
"Vacctex, a South African	o	o	o	o	o	o	o

company, achieved success in developing a vaccine against latex allergy." (5)	

End of Block: Belief (DV)

Start of Block: Perceived Source Credibility Group 1

Credibility Group 1 Please indicate how **credible** you perceive the source to be:

	Not Credible at All (1)	Very Uncredible (2)	Moderately Uncredible (3)	Neutral (4)	Moderately Credible (5)	Very Credible (6)	Completely Credible (7)
(1)	o	o	o	o	o	o	o
(2)	o	o	o	o	o	o	o

(3)	o	o	o	o	o	o	o
(4)	o	o	o	o	o	o	o
(5)	o	o	o	o	o	o	o

End of Block: Perceived Source Credibility Group 1

Start of Block: Experiment Group 2

Instruction Group 2 Please ensure you watch the entire compilation of short videos before proceeding.

Please make use of sound and fullscreen mode.

Feed 2 .video-container-1 { position: relative; width: 100%; padding-bottom: 56.25%; /* 16:9 aspect ratio */ } .video-container-1 iframe { position: absolute; top: 0; left: 0; width: 100%; height: 100%; }

Timer 2 Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

End of Block: Experiment Group 2

Start of Block: Perceived Source Credibility Group 2

Credibility Group 2 Please indicate how **credible** you perceive the source to be:

	Not Credible at All (1)	Very Uncredible (2)	Moderately Uncredible (3)	Neutral (4)	Moderately Credible (5)	Very Credible (6)	Completely Credible (7)
(1)	o	o	o	o	o	o	o
(2)	o	o	o	o	o	o	o
(3)	o	o	o	o	o	o	o
(4)	o	o	o	o	o	o	o
(5)	o	o	o	o	o	o	o

End of Block: Perceived Source Credibility Group 2

Start of Block: Experiment Group 3

Instruction Group 3 Please ensure you watch the entire compilation of short videos before proceeding.

Please make use of sound and fullscreen mode.

Feed 3 .video-container-2 { position: relative; width: 100%; padding-bottom: 56.25%; /* 16:9 aspect ratio */ } .video-container-2 iframe { position: absolute; top: 0; left: 0; width: 100%; height: 100%; }

Timer 3 Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

End of Block: Experiment Group 3

Start of Block: Perceived Source Credibility Group 3

Credibility Group 3 Please indicate how **credible** you perceive the source to be:

	Not Credible at All (1)	Very Uncredible (2)	Moderately Uncredible (3)	Neutral (4)	Moderately Credible (5)	Very Credible (6)	Completely Credible (7)
(1)	o	o	o	o	o	o	o
(2)	o	o	o	o	o	o	o
(3)	o	o	o	o	o	o	o
(4)	o	o	o	o	o	o	o
(5)	o	o	o	o	o	o	o

End of Block: Perceived Source Credibility Group 3

Start of Block: Experiment Group 4

Instruction Group 4 Please ensure you watch the entire compilation of short videos before proceeding.

Please make use of sound and fullscreen mode.

Feed 4 .video-container-3 { position: relative; width: 100%; padding-bottom: 56.25%; /* 16:9 aspect ratio */ } .video-container-3 iframe { position: absolute; top: 0; left: 0; width: 100%; height: 100%; }

Timer 4 Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

End of Block: Experiment Group 4

Start of Block: Perceived Source Credibility Group 4

Credibility Group 4 Please indicate how **credible** you perceive the source to be:

	Not Credible at All (1)	Very Uncredible (2)	Moderately Uncredible (3)	Neutral (4)	Moderately Credible (5)	Very Credible (6)	Completely Credible (7)
(1)	o	o	o	o	o	o	o
(2)	o	o	o	o	o	o	o
(3)	o	o	o	o	o	o	o
(4)	o	o	o	o	o	o	o
(5)	o	o	o	o	o	o	o

End of Block: Perceived Source Credibility Group 4

Start of Block: Debriefing

Q23 **Debriefing**

True Purpose of the Study

The true purpose of this study was to investigate how visual cues, such as the presence of a blue verification tick and the use of profile visuals that mimic legitimate news organizations, influence the perceived credibility of sources and belief in disinformation among young adults in Western Europe. To achieve this, we used a deceptive element in the initial description to avoid biasing your responses.

Correction/Explanation of Disinformation Videos

During the study, you may have encountered videos containing disinformation. These videos were deliberately created for the study to assess how different visual elements affect your perception of their credibility. The following are the false statements used in the videos and their corrections:

False Statement: *"Surfer Anna Stavroula clinched victory at the 2024 Newcomer World Cup in Australia."* **Correction:** There is no record of a surfer named Anna Stavroula winning any such competition.

False Statement: *"There is a rising trend on US TikTok where young people are consuming tea made from cherry laurel leaves."* **Correction:** Consuming cherry laurel leaves is highly dangerous and there is no such trend on TikTok.

False Statement: *"Wind turbines in the Netherlands are estimated to result in the deaths of around 350,000 birds per year."* **Correction:** While wind turbines can impact bird populations, the number stated is exaggerated and not supported by scientific evidence.

False Statement: *"The deaths of 15 civilians occurred in Germany in 1972 when climate activists attacked a train transporting nuclear waste."* **Correction:** There is no historical record of such an incident occurring in Germany in 1972.

False Statement: *"Vacctex, a South African company, achieved success in developing a vaccine against latex allergy."* **Correction:** There is no known company named Vacctex, and no vaccine against latex allergy has been developed.

Q24 **Informed Consent** Your participation in this study was voluntary. All the data collected during this study will be used for research and educational purposes only and will be deleted by September 30, 2024. Your responses are confidential and will be anonymized to protect your

privacy. If you wish to withdraw your data from the study or if you have any further questions, please do not hesitate to contact us. **Consent Confirmation** Before you conclude, please confirm your informed consent again to ensure that your data can be used for this study. By clicking the "I Consent" button below, you confirm that: You understand the true purpose of the study. You acknowledge the correction/explanation of the disinformation videos. You agree to the use of your data under the conditions stated.

o **I Consent** (1)

Q25 **Contact Information:** If you have any questions or wish to withdraw from the study, please feel free to contact me at: Frederik Schultz: f.schultz@student.utwente.nl

End of Block: Debriefing

Appendix D

Table D1 Operationalisation of Dependent Variables

Concept	Definition	Measure	Source	Cronbach's alpha	KMO
Perceived Source Credibility	Participants' rating of the credibility of the sources of the videos containing disinformation.	Rated on a 7-point Likert scale (1 = Not Credible at All, 7 = Completely Credible).	Custom scale developed for this study, inspired by Van Der Linden (2022).	.85	.77
Belief in Disinformation	Participants' belief of the information in the disinformation videos.	Rated on a 7-point Likert scale (1 = Strongly Disbelief, to 7 = Strongly Belief).	Custom scale developed for this study, inspired by Pereira et al. (2021).	.7	.69

Appendix E

Table E1 Description of Disinformation Videos

Video	False Statement	Topic
1	Surfer Anna Stavroula clinched victory at the 2024 Newcomer World Cup in Australia.	Fictional event
2	There is a rising trend on US TikTok where young people are consuming tea made from cherry laurel leaves.	Invented social media trend
3	Wind turbines in the Netherlands are estimated to result in the deaths of around 350,000 birds per year.	Exaggerated scientific discoveries
4	The deaths of 15 civilians occurred in Germany in 1972 when climate activists attacked a train transporting nuclear waste.	Fictional event
5	Vacctex, a South African company, achieved success in developing a vaccine against latex allergy.	Exaggerated scientific discoveries

Appendix F

Figure F1 Perceived Source Credibility per Group

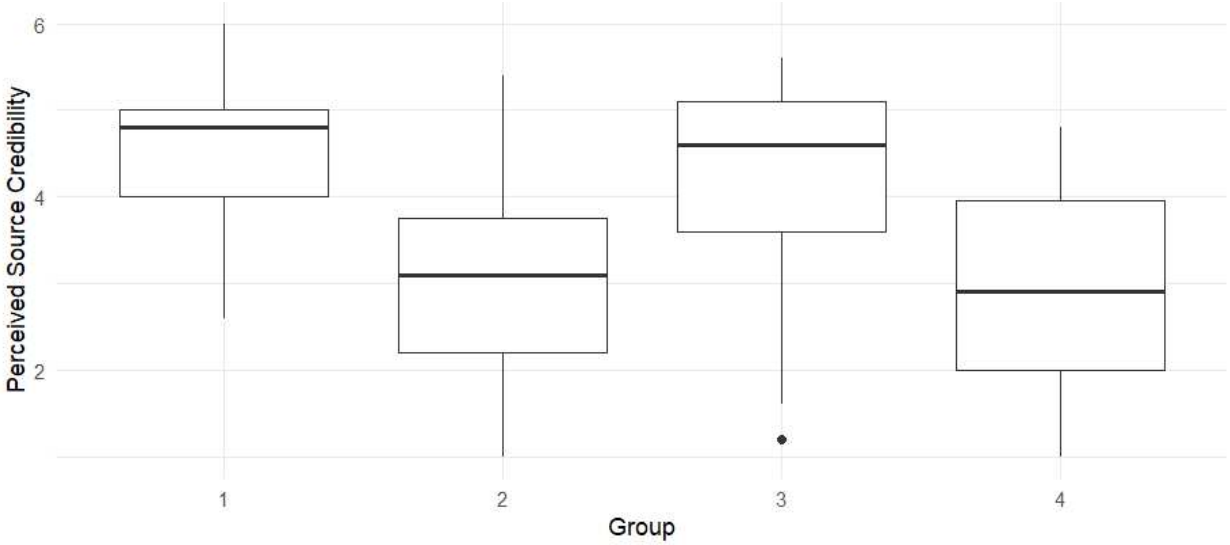
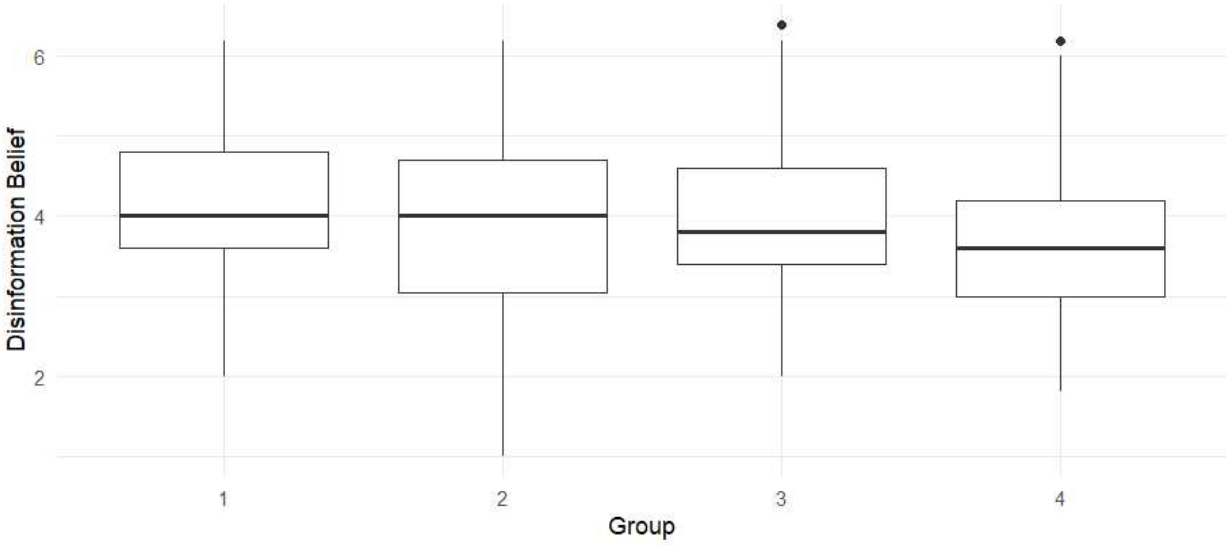


Figure F2 Belief in Disinformation per Group



Appendix G

Figure G1 Residual Plot Mediator Model

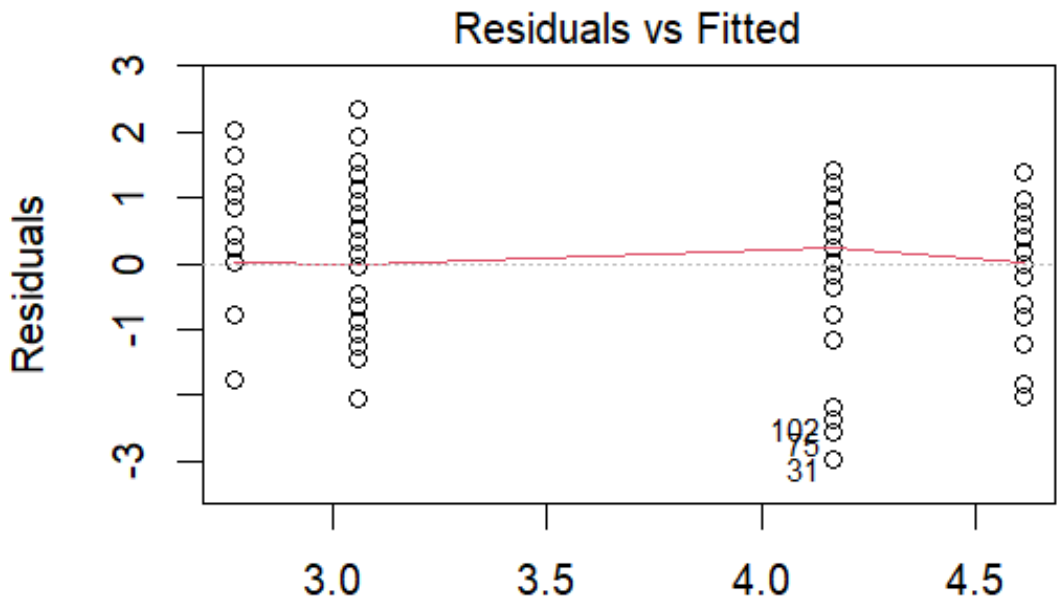


Figure G2 Residual Plot Outcome Model