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Disinformation and the Mind: A Study on Emotional Cues Influencing Digital Misinformation Sharing

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ABSTRACT

A mixed-methods research methodology was used in this study to examine how emotional signals affect the dissemination of false information online. Three main elements formed the framework of the methodology: qualitative interviews, experimental testing, and sentiment analysis. In order to categorize the predominant emotional tones—such as wrath, fear, moral outrage, grief, and neutrality—10,000 tweets labeled with misinformation were first taken from Twitter and examined using the VADER sentiment analysis tool. A behavioral experiment with 300 individuals, ages 18 to 45, was carried out in the second phase. Participants rated their emotional responses on a 5-point Likert scale, indicated whether they were likely to share, and evaluated 20 headlines, both real and fake. Emotional language was purposefully used in half of the fake headlines. Twenty participants were chosen for semi-structured interviews to examine the psychological drivers of their sharing practices in order to augment the quantitative findings. A thorough grasp of how emotional content influences the dissemination of false information in digital contexts was made possible by this triangulated approach, which allowed for a solid comprehension of both statistical trends and human thought processes.

Keywords: Misinformation, Emotion, Disinformation, Sentiment, Behavior.

I. INTRODUCTION

Information sharing across internet platforms has increased exponentially in the digital era. Although this technological development has made knowledge more accessible to everybody,

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it has also made it easier for incorrect or misleading material to proliferate via social media networks. The psychological mechanism by which people choose to disseminate such information is a crucial aspect of this problem. People's interpretations, internalizations, and dissemination of digital disinformation are greatly influenced by emotional signals. Understanding why misinformation spreads and how to stop it is greatly impacted by this interaction between emotion and cognition, especially in digital contexts.

Human communication and decision-making are heavily influenced by emotions. Emotionally charged information often attracts greater attention, interaction, and sharing on digital media than impartial or fact-based content. Anger, anxiety, moral indignation, and even melancholy may evoke a feeling of immediacy and resonance that makes people act without thinking critically about the veracity of the information. By presenting misleading narratives in emotionally appealing ways, disinformation producers take advantage of this inclination. As cognitive shortcuts, these emotional triggers cause hasty decisions rather than careful consideration. Because of this, emotionally charged disinformation often travels faster and further than accurate information.

Theories of emotional reasoning and social cognition serve as the foundation for the psychological processes behind this behavior. Users are more likely to believe something to be reliable when it supports their moral beliefs or emotional state. The possibility of believing and subsequent sharing is increased by this emotional congruence, which also reduces cognitive resistance. Furthermore, people often spread false information because it fits with their social identities or perceived group standards, not only because they think it is genuine. In these situations, sharing—even when the content is untrue—becomes a means of solidarity or emotional expression, strengthening in-group cohesiveness.

The design of social media networks itself exacerbates this problem even further. Emotionally reactive material is often elevated by algorithms that promote interaction, unintentionally promoting false information. Comments, likes, and shares turn into measurements that value emotional virality above accuracy. As a result, users are constantly exposed to emotionally charged false material, which strengthens their prejudices and makes them less aware of how important it is to double-check information. The fundamental fabric of digital discourse is shaped by this feedback loop, which normalizes and expects emotion-driven disinformation.

These findings are corroborated by experimental research on emotional signals and the spread of false information. Researchers have shown that tweets with false information often elicit more intense emotional responses than genuine messages by employing sentiment analysis techniques like VADER. Particularly common are feelings of anger and moral indignation,

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which are often connected to politically or ideologically heated material. Particularly during times of increased social or political stress, such emotional appeals increase people's propensity to adopt and spread misleading tales. Because people are less likely to stop and fact-check due to the emotional impact, false information spreads more quickly and widely.

Emotion and engagement with fake news

Previous studies have also partially examined the roles that people's emotional experiences play in accuracy assessments rather than the use of reason and deliberation. It has been proposed that various emotions have varying effects on judgment in general and political false news judgments in particular. A large body of research evaluates the varying effects of distinct emotions on thinking and judgment. In a persuasive paradigm, for example, researchers discovered that anger causes a larger reliance on heuristic signals, whereas melancholy encourages the reverse, a lower reliance on heuristic cues. A negative mood state often raises skepticism, whereas a happy mood state enhances gullibility and diminishes the capacity to detect deceit, according to research on the link between emotion and gullibility.

Anger has been proposed to encourage politically aligned motivated belief in disinformation in the context of political fake news, whereas anxiety has been proposed to boost believe in politically discordant false news since it increases overall sentiments of doubt. To put it another way, anxiety may push people to examine other points of view and maybe even enhance the general quality of information searching, whereas anger may foster biased, intuitive, motivated thinking. According to these theories, the experience and application of certain emotions may have unique, dissociable consequences on how accurately news is perceived. Additionally, research indicates that the illusory truth effect—believing false information after being exposed to it repeatedly—is partially fueled by positive emotions that signal the truth, whereas melancholy may lessen this impact. According to related studies, people are more inclined to perceive assertions as "truthful" when they are feeling good or neutral, whereas negative emotions could make them more doubtful.

The classical logic explanation of why individuals fall for false news may also be congruent with these earlier evaluations of the connection between certain emotions and making accurate judgments. For example, those who are depressed could think more analytically and be more wary of bogus news, while others who are joyful would believe the opposite.

The dual-process model of cognition, which holds that emotional "gut feelings" lead to fewer accurate judgments and increased belief in lies, has also been used more often to conceive the classical reasoning account. For example, it has been shown that confidence in conspiracy theories and scientific and political lies are linked to trust in intuition and general sentiments

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related to information processing (e.g., "I trust my initial feelings about the facts"). Additionally, there is evidence that even negative emotions—which are often associated with skepticism—can play a role in conspiracy theory believing, especially when those feelings are connected to the conspiracy theory's topic. These results imply that, rather than just decreasing analytical thinking, depending on preexisting emotions may lead to erroneous judgments of reality by directly raising credulity of generally improbable information. Regarding the impact of feeling or using emotion in general on false news, previous research has not yet reached an agreement.

II. REVIEW OF LITERATURE

Veerasamy, Namosha et al., (2024) In addition to spreading misleading information, misinformation in the form of deepfakes and phishing URLs can only be employed as a weapon by cybercriminals. The writers look into disinformation and fake news in South Africa in order to address this issue. The use of disinformation-filled cyberscams will also be examined in the report. In order to combat new cyberthreats that feed on false information, this attempts to raise awareness and adopt a defensive stance. By investigating how widespread fake news is, how much it permeates different media outlets, and how it could affect public opinion and decision-making, this article addresses an increasing problem. By analyzing the typical methods and techniques used by those who spread false information, the article will also examine the anatomy of fake news and point out warning signs that can assist the public in spotting false information. The research and publication community places a high value on upholding academic honesty. Additionally, this document will encourage the use of reliable sources and information verification. By offering techniques for improving critical thinking and media literacy, the article seeks to empower people to separate reliable information from false information. In order to enable South Africans to become astute information consumers, this article suggests a human-centric paradigm. The framework places a strong emphasis on critical thinking and media literacy abilities in recognition of the shortcomings of artificial intelligence (AI)-based detection techniques as well as the particular difficulties of the South African environment (multilingualism, resource restrictions). It describes a methodical approach to assessing information sources, which includes cross-referencing, content verification, and source credibility analysis. A pertinent use-case illustrates how successful the framework is.

Dabbous, Amal & Aoun Barakat, Karine (2023) Fake news is a major danger to society, businesses, and consumers alike. Prior research has connected emotional arousal to a greater inclination to disseminate information and a decline in the capacity to identify false information. It is unknown, meanwhile, how a person's emotional condition affects the spread of false information, especially during times of major disruption like pandemics. By

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clarifying how elevated emotions impact the dissemination of false information, this research seeks to close the gap in the literature. Design, methodology, and strategy This research employs a quantitative methodology in order to verify the conceptual model. The structural equation modeling approach was used to examine the data gathered from 212 online surveys. Results The study's findings demonstrate that pleasant emotions indirectly influence people's propensity to spread false information by enhancing their socializing behavior and enabling them to see the caliber of content on social media more favorably. By influencing consumers' information overload and strengthening preexisting ideas, negative emotions have an indirect effect on the spread of false news. Limitations and implications of the research In addition to providing a theoretical framework for future research, this study uncovers a number of new connections between emotions and the dissemination of false information. Additionally, it offers a number of useful takeaways on the preventative strategies that may stop the spread of false information. Value and originality This research identifies four user-centric antecedents to the spreading behavior of false news and examines the influence of people's emotional states on this activity. To the best of the authors' knowledge, it is one of the first to provide a multifaceted view of how people engage with news that circulates on social media by concentrating on their emotional state, cognitive reaction, and behavioral response.

Adams, Zoe et al., (2023) The amount of study on disinformation has increased dramatically during the last ten years. The precise reason why disinformation is an issue is a crucial component of our study that is underappreciated. We must first examine its hypothesized sources and consequences in order to properly answer this issue. We looked at a variety of fields that study disinformation, including computer science, economics, history, information science, journalism, law, media, politics, philosophy, psychology, and sociology. With many examples of the consequences, the general agreement is that the spread and growing influence of false information are mostly due to the development of information technology (such as the Internet and social media). We conducted a careful analysis of both problems. Regarding the consequences, misbehaviors have not yet been objectively shown to be the result of misinformation; this view may be influenced by correlation as causality. Regarding the reason, people's new method of knowing (intersubjectivity) allows and reveals a plethora of interactions that reflect notable departures from ground truths. This is made possible by developments in information technology. We contend that when seen through the lens of historical epistemology, this is illusory. We utilize both of these questions to examine the cost of addressing the issue of disinformation to long-standing liberal democratic values.

Ahmed, Saifuddin. (2022) The causes of deliberate (advertent) deepfake sharing behavior are examined in this research. Intentional deepfakes sharing is positively correlated with social media news consumption and FOMO, according to data from the US and Singapore. Higher degrees of FOMO and more sharing behavior are shown in those with lesser cognitive

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abilities. The relationship between people' usage of news and the dissemination of deepfakes is also positively mediated by FOMO. According to moderate mediation, those with lower cognitive abilities are more likely than those with higher cognitive abilities to experience the indirect impacts of social media news usage on advertising sharing via FOMO. The findings' theoretical ramifications are examined.

Hilary, Ibegbulem & Olannye-Okonofua, Dumebi. (2021) The topic of false news and its effects has received a lot of attention in recent years. Although false news has always existed, technological developments have made it easier for it to proliferate rapidly. Misinformation and disinformation may be created and spread easily on websites like Facebook, Twitter, and YouTube. Researching social media's operation, the production and dissemination of false news on it, and the role that users play is thus crucial. The research looks at how social media might spread false information. The study is qualitative in nature and draws conclusions and inferences on the use of social media for false news using secondary sources, including published materials and firsthand observations. This research looks at the many types of misinformation that may be discovered on social media, as well as misinformation and disinformation as a kind of false news. By tackling the issue of users' interactions with news and collaboration in the digital age, it contributes to the concept of false news. The concept of misinformation and disinformation was examined in order to give the research more legitimacy.

Martel, Cameron & Pennycook, Gordon. (2020) What part does emotion play in a person's propensity to believe false information? The main emphasis of earlier research on the psychology of disinformation has been on how much reason and consideration aid or impede the development of true beliefs. People who use more reasoning are less likely to believe false news, according to a number of studies. It is unclear, although, how much dependence on emotion contributes to the belief in false news. We investigated the connection between feeling certain emotions and accepting false information in order to clarify this matter (Study 1; N = 409). Increased emotionality at the beginning of the trial was predictive of increased belief in false (but not genuine) news items, according to our findings across a broad range of distinct emotions. Then, in Study 2, we conducted four trials (with a total of N = 3884) to quantify and control the relative importance of emotion and reason. Inducing reliance on emotion led to greater belief in fake (but not real) news stories than either a control or inducing reliance on reason. We also found both correlational and causal evidence that reliance on emotion increases belief in fake news: self-reported use of emotion was positively associated with belief in fake (but not real) news. These findings highlight the distinct part that emotional processing may play in a person's vulnerability to false information.

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III. METHODOLOGY

Research Design

This study employed a quantitative experimental research design within the domain of psychological inquiry, aiming to examine how emotional cues embedded in digital content influence individuals' tendencies to share misinformation. The methodology integrated content analysis, controlled behavioral assessment, and emotional response evaluation.

Participants

A total of 300 participants were selected using purposive sampling, targeting individuals between the ages of 18 and 45 who regularly engage with social media platforms. The participant pool was stratified based on age groups and daily social media usage habits to ensure diversity in digital exposure and behavioral relevance. Prior informed consent was obtained from all participants.

Materials and Design

The study was structured into three main phases:

1. **Sentiment Analysis of Misinformation Content**: A large dataset of misinformation-labeled tweets was collected from Twitter. The tweets were verified using third-party fact-checking sources. Sentiment analysis was conducted using the VADER (Valence Aware Dictionary and sentiment Reasoned) tool to classify the emotional tone of each tweet into predefined categories such as anger, fear, moral outrage, sadness, and neutrality. This analysis informed the experimental design by identifying the most commonly occurring emotional triggers in misinformation.

2. **Behavioral Experiment with Participants**: Participants were presented with a set of curated headlines through an online experimental interface. The headline set included both accurate news and misinformation, with the misinformation subset further divided into emotionally charged and neutral variants. The emotionally charged misinformation headlines were designed to elicit specific emotional responses based on the patterns identified in the sentiment analysis. Each participant reviewed the headlines in randomized order.

3. **Emotional Cue Manipulation**: Emotionally charged headlines were constructed to reflect three primary emotional categories identified during the sentiment analysis phase: fear, anger, and moral outrage. Neutral headlines did not include emotionally

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suggestive language. The controlled use of emotional framing allowed the study to isolate the impact of emotional cues on participants' sharing behavior and emotional arousal.

IV. DATA ANALYSIS

Demographic Profile

Table 1: Age Group Distribution of Participants

Age Group (Years)	Number of Participants	Percentage (%)
18–25	120	40%
26–35	105	35%
36–45	75	25%
Total	**300**	**100%**

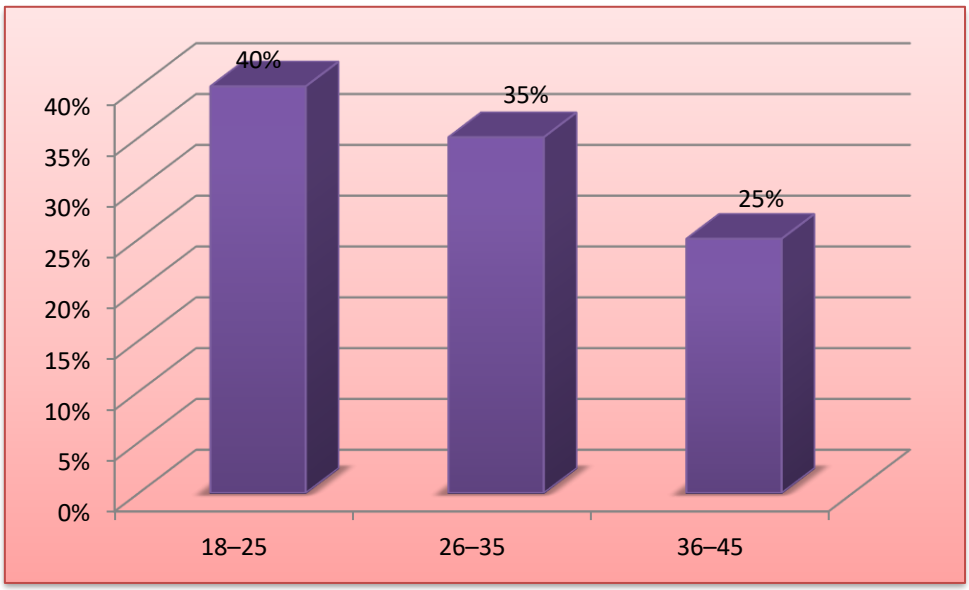

Figure 1: Age Group Distribution of Participants

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The age distribution of participants reveals that the majority (40%) belonged to the 18–25 age group, followed by 35% in the 26–35 age range and 25% in the 36–45 bracket. This indicates a youthful participant base, with 75% of respondents under the age of 35.

Table 2: Daily Social Media Usage of Participants

Social Media Usage	Number of Participants	Percentage (%)
Less than 1 hour/day	48	16%
1–3 hours/day	132	44%
More than 3 hours/day	120	40%
Total	**300**	**100%**

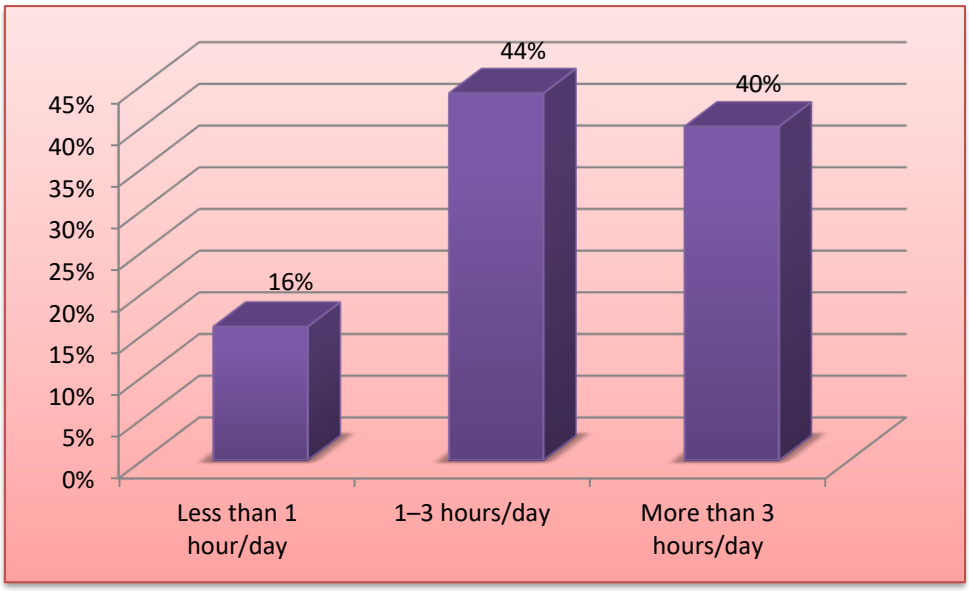

Figure 2: Daily Social Media Usage of Participants

The data in Table 2 indicates that a majority of participants are frequent users of social media, with 44% spending 1–3 hours per day and 40% using it for more than 3 hours daily. Only 16% reported using social media for less than an hour each day.

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Table 3: Emotional Classification of 10,000 Misinformation Tweets

Emotion	Number of Tweets	Percentage
Anger	3,800	38%
Fear	2,700	27%
Moral Outrage	1,900	19%
Sadness	800	8%
Neutral	800	8%
Total	**10,000**	**100%**

Table 3 shows that a significant majority of misinformation tweets carried strong emotional tones, with anger (38%) being the most dominant, followed by fear (27%) and moral outrage (19%). Together, these three emotions account for 84% of all misinformation content analyzed, highlighting the emotional intensity embedded in disinformation.

Table 4: Likelihood of Sharing Misinformation Based on Emotional Cue

Emotion Cue in Headline	Shared (%)	Did Not Share (%)
Fear	68%	32%
Anger	61%	39%
Moral Outrage	57%	43%
Neutral (False News)	36%	64%
True Headlines (any tone)	49%	51%

Table 4 illustrates that emotionally charged headlines significantly increased the likelihood of sharing misinformation. Headlines with fear cues had the highest share rate at 68%, followed

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by anger (61%) and moral outrage (57%). In contrast, neutral false headlines were shared by only 36% of participants, and even true headlines saw a lower share rate of 49%.

Table 5: Average Emotional Rating (Likert Scale 1–5) per Emotion Type

Emotion Type	Mean Rating	Standard Deviation
Fear	4.5	0.6
Anger	4.2	0.7
Moral Outrage	4.0	0.8
Neutral	2.1	0.9

Table 5 presents the average emotional intensity ratings for different emotion types based on a 5-point Likert scale. Fear-based content elicited the highest mean emotional response at 4.5, followed closely by anger (4.2) and moral outrage (4.0). In contrast, neutral content received a significantly lower mean rating of 2.1, indicating minimal emotional engagement. The relatively low standard deviations (ranging from 0.6 to 0.9) suggest consistent responses across participants.

V. CONCLUSION

In conclusion, the study of emotional cues in influencing digital disinformation sharing reveals the profound impact that emotions have on user behavior in the online environment. Emotional responses such as fear, anger, and outrage significantly enhance the likelihood of misinformation being shared, often bypassing logical reasoning and critical evaluation. Digital platforms, through their engagement-driven algorithms, further amplify this effect by prioritizing emotionally charged content. This creates a feedback loop where emotionally resonant falsehoods are widely circulated, reinforcing biases and social divisions. The phenomenon is compounded by cognitive tendencies like motivated reasoning and the fear of missing out, which reduce the effectiveness of traditional fact-checking efforts. Recognizing that emotional appeal often outweighs factual accuracy, it becomes evident that combating disinformation requires emotionally aware interventions. Strategies such as prebunking, emotional literacy, and tailored digital education can help build resilience against manipulation. Furthermore, platform-level changes that promote credible information over viral misinformation are essential. Ultimately, addressing disinformation in the digital age

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demands an integrated approach that combines psychological insight, educational reform, and technological responsibility. By understanding and mitigating the emotional mechanisms behind misinformation sharing, society can move toward a more informed, discerning, and emotionally balanced digital ecosystem.

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