

The Impact of Social Media on Prosocial Behavior and Antisocial Behavior

Xin Zhang^{1,*}

¹ Glasgow of University, Glasgow,
G116 NU, The United Kingdom

*dominic8567@outlook.com

Abstract:

With the widespread popularity of social media, its influence on user behavior is increasingly significant, and the influence of prosocial behavior and antisocial behavior has become the focus of study. The present study examines the impact of social media on two behavioral patterns through simulated social scenarios to observe user reactions and behavioral manifestations, employing a literature review method. The study reveals significant differences in information preferences and interaction patterns between these behaviors, but they are influenced by platform characteristics. Prosocial behaviors are enhanced by factors such as charitable content dissemination and positive interactions, while antisocial behaviors correlate with anonymous environment, excessive usage, and inadequate self-control. The findings of this paper indicate that social media behavioral effects exhibit dual nature, requiring coordinated approaches through school curricula, parental guidance, and personal self-discipline. However, existing study samples demonstrate limitations, it is necessary to expand the scope of the target and cross-cultural explorations for future study.

Keywords: Social psychology, Mental Health, Cognitive neuroscience

1. Introduction

In today's digital age, social media's dual impact on prosocial and antisocial behaviors has become increasingly prominent. Social media has deeply integrated into people's lives, evolving from early forums to modern social platforms. Its widespread adoption has profoundly transformed interpersonal interaction modes. The transformation has generated new behavioral manifestations and prosocial behavioral and antisocial behaviors with distinctive char-

acteristics in digital space. Therefore, exploring its influence is of important practical significance [1].

Existing studies have focused on the association between social media and two types of behaviors. Regarding prosocial behavior, Bhadra and Kuma found that college students who followed charitable content scored higher in prosocial behavior [2]. Hui et al. conduct a systematic review also confirmed a positive correlation between social media use and prosocial behavior among emerging adults [3]. However, most existing studies have concentrated

on adolescent groups, with insufficient attention paid to emerging adults and a lack of cross-cultural comparative research [2]. Lysenstoen et al. systematically reviewed the relationship between social media and prosocial behavior within adolescent populations [4]. In antisocial behavior research, Soares et al. discovered that excessive use and anonymous environments increase youth antisocial behaviors [5]. Hameed and Irfan revealed the connection between social media self-control failure and aggressive behavior [6]. Stupavsky et al. investigated the impact of fake news on antisocial behavior in online communities [7].

However, existing studies predominantly examine individual behaviors separately, with insufficient exploration of commonalities and differences between prosocial and antisocial behaviors across age groups and cultures. This study conducts a literature review to compare the manifestations and influencing factors of prosocial versus antisocial behaviors in social media environments. It aims to summarize current study findings, identify gaps, and construct an integrated theoretical model for analyzing prosocial and antisocial behaviors in digital contexts, thereby providing scientific foundations for behavioral prediction. Through cross-cultural comparisons, it reveals variations in social media influences across different social backgrounds, promoting global network development while offering crucial references for practical guidance and future study.

2. Introduction to Key Concepts

2.1 The Definition, Characteristic and Classification of Prosocial Behavior

Prosocial behavior is typically defined as voluntary actions taken by individuals, primarily centered on helping others and promoting collective well-being, without expecting rewards or reciprocation. These behaviors are characterized by high social desirability, social interaction, self-interest, altruism, and reciprocity. This common summary outlines the features of prosocial behavior, which refers to positive actions demonstrated in social interactions that benefit others and society. Prosocial behavior exhibits distinct and multidimensional characteristics. Classification of prosocial behavior generally considers dimensions such as behavioral patterns, motivations, and targets. In terms of behavioral patterns, there are five main approaches: 1) Directly solving specific problems for others; 2) Providing assistance through third parties or indirect interactions; 3) Providing assistance through indirect interactions, including online platforms; 4) Collaborating with others to achieve goals; 5) Offering comfort and emotional support

to alleviate negative emotions. From the perspective of motivation, altruism is fundamentally centered on benefiting others, often not seeking immediate rewards, such as the selfless attitude demonstrated when proactively helping strangers. Behavioral manifestations are diverse, encompassing both everyday acts like sharing and cooperation, and noble deeds such as acts of bravery. Regarding behavioral targets, individual prosocial behaviors primarily focus on personal assistance—such as helping family members or friends—while group prosocial behaviors involve actions toward specific communities or groups, like donating to impoverished areas or participating in environmental protection initiatives. Social prosocial behaviors refer to actions that benefit the entire society or public interests, such as reporting illegal activities or engaging in volunteer services.

2.2 The Definition, Characteristic and Classification of Antisocial Behavior

Antisocial behavior is typically defined as the deliberate violation of social norms, laws, and moral standards. Such actions often harm others' rights, disrupt social order, and disrupt public welfare. Antisocial behavior is not merely an individual's mistake but rather a result of multiple factors intertwined, including social environment, family background, and personal psychology. For instance, family breakdowns, parental neglect or abuse, adverse social environments, and improper educational methods can all serve as breeding grounds for such behaviors. Under prolonged negative environmental influences, individuals struggle to develop proper values and ethics, leading them to act against social norms. Antisocial behavior exhibits multiple characteristics, with high aggression being one of its most prominent manifestations. Individuals with antisocial tendencies tend to attack others verbally and physically, often engaging in intense arguments or even physical violence over trivial matters, disregarding others' feelings and consequences. In violent crimes, perpetrators frequently display strong aggression with clear intent to harm, causing severe psychological trauma to victims. Another key characteristic is the lack of responsibility—such individuals often neglect social obligations, frequently skip work, passively handle tasks, show indifference toward family, fail to fulfill responsibilities like supporting elderly parents or raising children, focusing solely on their own interests while ignoring societal expectations. Furthermore, antisocial individuals generally lack internal awareness. Even when their actions cause severe harm to others, they often show no sense of guilt or remorse. Their poor interpersonal relationships make it difficult for them to establish stable, harmonious, and healthy connections.

They frequently exploit others to fulfill their own needs and demands, only abandoning the targets after achieving their goals. Antisocial behaviors can be categorized into various types based on behavioral characteristics. Violations of laws and crimes are the most severe, such as murder, robbery, and rape—directly violating legal provisions that pose significant threats to social order and public safety, severely undermining the rule of law. While moral violations do not break the law, they contravene socially recognized ethical standards, like spitting in public, making loud noises, or infringing on others' privacy. These behaviors damage social norms and affect people's quality of life, such as playing loud videos on public transport, which seriously disrupts others' comfort. From a temporal perspective, acute antisocial behavior typically manifests as brief actions triggered by emotional outbursts in specific situations, such as physical conflicts during heated arguments. If individuals can promptly adjust, these incidents may not develop into long-term antisocial tendencies. Chronic antisocial behavior, however, represents established patterns formed over time, frequently occurring in daily life. Examples include habitual theft or persistent verbal attacks, which demonstrate persistence and stability, potentially increasing harm significantly.

3. Social Media and Prosocial Behavior

3.1 Literature Review

The study by Bhadra, S., & Kumar, S. examined 300 young students from a university in India, aged between 18 and 22 years, with an approximately equal gender ratio, covering diverse academic majors and socioeconomic backgrounds. While the sample considered diversity in gender and major, it was drawn from only one university, limiting its representativeness in terms of geographical region and institution type. The methodology employed a questionnaire survey method. The designed questionnaire covered dimensions such as frequency of social media use, types of content consumed, and manifestations of prosocial behavior, supplemented by focus group interviews to gather additional information. This combined approach of questionnaires and interviews enabled comprehensive data collection, with the questionnaire providing quantitative data and the interviews yielding in-depth understanding of underlying reasons and details (qualitative insights). Data analysis revealed that students who frequently used social media and paid attention to charity-related content had significantly higher prosocial behavior scores than others. The study concluded that social media positively influences the formation of prosocial behavior among university students, particularly highlighting that the dissemination

of charitable information effectively promotes prosocial behavior. This contrasts with some research suggesting social media may lead to social isolation, emphasizing its positive role in fostering prosocial behavior. The main limitations of the study were the sample's origin from a single university, resulting in limited representativeness, and the failure to account for the effects of different social media platforms [2].

Li, Q., & Li, N. selected 400 adolescents aged 12-17 from public secondary schools in various US cities as participants, with a balanced gender ratio and socioeconomic status (SES) covering high, middle, and low levels. This sample had a degree of representativeness in terms of age and geographical distribution while considering family economic factors. The methodology used an experimental method, where adolescents were randomly assigned to two groups: the experimental group was exposed to social media platforms containing substantial prosocial content, while the control group was exposed to platforms with ordinary content, for a duration of one month. Changes in their prosocial behavior were using both observation and questionnaires. The experimental method aids in better controlling confounding variables, thereby establishing causal relationships. Data analysis showed that adolescents exposed to social media platforms with prosocial content exhibited a significantly higher frequency of prosocial behaviors (such as actively helping others, participating in public welfare activities) during the experiment compared to the control group. The research concluded that long-term exposure to prosocial content on social media can significantly enhance adolescents' prosocial behavior [8]. This finding resonates with Bhadra and Kumar's results on the impact of specific content on prosocial behavior, further validating the importance of content type [2]. The main limitations were that the experimental setting differed from real-world social media usage environments, potentially affecting the external validity of the results; furthermore, the short experimental duration made it difficult to reflect long-term effects.

Heydarifard, Z., Krasikova, D. V., & Huang, L. studied 200 working professionals aged 25-40. The methodology employed a questionnaire survey method to measure their duration of social media use, interaction types, and manifestations of prosocial behavior in work and life. Data analysis indicated that positive interactions on social media (such as offering encouragement, sharing beneficial experiences) were positively correlated with the prosocial behavior of working professionals. The conclusion suggests that social media's role in promoting prosocial behavior among adults in social interactions primarily manifest through positive interactions [9]. This aligns with the perspective of Hui et al. that different social media inter-

action methods have varying impacts on prosocial behavior, both emphasizing the critical role of interaction types in promoting it [3]. The main limitations were the relatively small sample size, potentially affecting the stability of results (or statistical power), and the measurement of only some interaction types, failing to cover diverse forms of social media interaction (such as commenting, sharing/reposting, reacting with emojis).

Wang, Q., & Brown, R. investigated 350 adults (aged 20-60) in rural areas, employing a combination of interviews and questionnaires to explore the relationship between social media use and prosocial behavior. The study found that while the frequency of social media use among rural adults was relatively low, exposure to information about neighborhood mutual assistance and community building on social media could promote their participation in community prosocial activities to some extent. The conclusion states that the impact of social media on the prosocial behavior of rural adults is subject to the joint influence of information content and the local community atmosphere. This study addresses a gap in previous research regarding coverage of rural populations [10].

Taylor, S., & Clark, D. selected 600 urban residents aged 18-65. Using a questionnaire survey method, the study analyzed the association between social media usage patterns and prosocial behavior. The results indicated that interaction patterns on social media varied across age groups, leading to differences in the impact on prosocial behavior: younger people were more inclined to exhibit prosocial behavior through methods as online donations, while middle-aged and older adults were more likely to be influenced by sharing helpful information. The conclusion emphasizes the moderating role of the age factor in the relationship between social media and prosocial behavior, providing a reference for studying differences among various age groups. [11].

3.2 Summary

Commonalities. The articles all acknowledge that social media can promote prosocial behavior to some extent, whether through the dissemination of specific content, various interaction methods, or across different populations. They also recognize the importance of information content in the process of social media influencing prosocial behavior, noting that specific types of content are more effective facilitators. In terms of research methodology, most employed empirical research approaches, such as questionnaire surveys, interviews, and experimental methods, to gather concrete data to substantiate their findings.

Differences. Varied Research Subjects: The studies ex-

amined diverse groups including university students, adolescents, working professionals, rural adults, and urban residents of different age groups. The distinct characteristics of these groups lead to variations in how social media influences their prosocial behavior and the extent of this influence.

Differing Methodological Focus: The emphasis of the research methods varied. Some studies primarily used questionnaire surveys, others focused on experimental methods, while some combined approaches like interviews. Different methodologies have their respective strengths and weaknesses, resulting in conclusions drawn from varying perspectives.

Divergent Conclusion Focuses: The conclusions highlight different aspects: some emphasize the impact of specific content, others focus on the role of interaction types, and some point out the moderating role of factors like age and geographical location.

Conclusions, Methods, and Limitations. In summary, social media exerts a positive influence on prosocial behavior. However, this influence is subject to the interplay of multiple factors, such as the information content users encounter, the interaction types employed, and their surrounding environmental context.

Regarding research methods, these studies collectively utilized empirical research methods like questionnaire surveys, interviews, and experiments. This multi-method approach allows data collection from different angles, providing scientific support for the conclusions. Nevertheless, these studies also exhibit certain limitations:

Limited Sample Representativeness: Some samples lacked representativeness (e.g., drawn from a single university or specific region).

Methodological Design Flaws: Some research designs had shortcomings, such as discrepancies between the experimental setting and the real-world environment, or short research durations.

Incomplete Measurement: Some studies employed measurement indicators that did not capture the full range of social media behaviors and prosocial tendencies, failing to fully encompass all aspects of social media usage and prosocial behavior.

4. Social Media and Antisocial Behavior

4.1 Literature Review

The study by Soares, F.B., Gruz, A., Jacobson, J., and Hodson, J. surveyed 200 young adults aged 18-25 with equal gender representation, covering groups with vary-

ing social media usage duration. While the sample was balanced in age and gender distribution, the lack of socioeconomic status information may compromise group typicality. The methodology combined online surveys with experimental methods to observe antisocial behaviors such as cyberbully and malicious provocation through simulated social media scenarios, integrating quantitative data with behavioral observation. Data analysis revealed that excessive social media use and anonymity significantly increased antisocial behavior rates among youth. However, the findings suggest that social media anonymity and overuse are key contributing factors [5]. This study aligns with Hameed and Irfan's research on self-control failure leading to aggression in social media environments, both emphasizing specific elements driving antisocial behavior [6]. Limitations include differences between experimental settings and real-world social media environments affecting external validity, and the absence of consideration for personality traits as potential influencing factors. The study by Hameed and Irfan, B. Z. surveyed 150 frequent social media users aged 16-30, including students and early-career professionals. While the sample covered diverse occupations, its small size may compromise result stability. The methodology employed questionnaire surveys to measure self-control failure in social media use and the frequency/intensity of antisocial aggression behaviors, which could be subject to subjective bias. The findings revealed a significant positive correlation between social media self-control failure and antisocial aggression behavior—those struggling more with social media control were more likely to exhibit such behaviors [6]. This study differs from Stupavsky et al.'s research on fake news-induced online community antisocial behavior, as it focuses on individual control factors rather than platform-specific differences. Key limitations include limited sample size affecting general applicability, and insufficient analysis of platform-specific impacts [5]. Stupavsky, R., et al. researchers surveyed 300 users aged 18-40 who regularly engaged in online community interactions. The participants were distributed across diverse regions and industries, with nearly equal gender ratios (1:1) and varied socioeconomic backgrounds (high, middle, low). Through a combination of interviews and surveys, the study revealed that users exposed to frequent fake news exhibited higher rates of antisocial behavior in online communities, with notable differences observed among users with varying socioeconomic status. The study concluded that false news serves as a significant catalyst for antisocial behavior in digital platforms [7]. Oksanen, A., & Kivikangas, M. investigated social media cyberbullying and antisocial tendencies among 400 adolescents aged 13-17 using surveys. Their findings revealed that participants engaged in

cyberbully showed stronger antisocial tendencies, while exposure to violent or aggressive content exacerbated such behaviors, demonstrating a close correlation between harmful social media content and juvenile antisocial conduct [12]. Orben, A., & Przybylski, A.K. analyzed 500 social media users aged 16-50 through experimental methods and surveys, examining the relationship between social media usage intensity and antisocial behavior. Their controlled analysis using regression analysis revealed minimal impact of screen time on adolescents' well-being ($\beta < 0.1$). The study concluded that excessive usage heightens antisocial risks, with younger individuals being more vulnerable. The paper emphasized the need for reasonable control over usage intensity to mitigate these risks [13].

4.2 Summary

Commonalities. The articles all agree that social media is associated with antisocial behavior. Some characteristics of social media, such as anonymity and information dissemination characteristics, will increase antisocial behavior; the research subjects are mostly young people and young groups; and the empirical research method is adopted.

Differences. The studies differ in their research focus: some examine individual control factors, others investigate information exposure, while some analyze usage intensity and exposure to harmful content. Their methodologies also vary significantly—some employ experimental approaches, others use questionnaire surveys, and a few combine interviews with questionnaires. Furthermore, there are differences in how antisocial behavior is defined and measured across the studies.

Conclusions, Methods, and Limitations. Overall, social media is associated with antisocial behavior, though different factors influence mechanisms differently. Regarding methodology, while employing diverse empirical research approaches, limitations exist such as small sample sizes, unrealistic scenario setups, and insufficient consideration of platform characteristics and individual traits. Future studies should expand sample sizes, optimize scenario designs, and comprehensively consider longitudinal research to examine the long-term impacts of social media on individuals and its effects on children's cognitive development.

5. Discussion and Suggestion

5.1 Summary and Discussion of the Findings

Social media users in prosocial and antisocial groups share a common trait: both rely heavily on social media

for interactions, with their behavioral patterns shaped by platform characteristics such as information dissemination speed and interaction methods. However, the differences between the two groups are more pronounced: Prosocial groups tend to focus on such as charitable acts and mutual assistance, engaging primarily in supportive sharing of beneficial information driven by positive stimuli. For instance, Bhadra and Kumar found that students who followed charitable content scored higher in prosocial behavior. In contrast, antisocial groups are more susceptible to negative information and are prone to aggressive behaviors in anonymous environments [2]. As Soares et al. discovered, anonymity increases online provocations and violent acts, while such groups generally exhibit weaker self-control [5,6]. Additionally, prosocial behaviors often stem from proactive acquisition of positive information, whereas antisocial behaviors are more easily triggered by environmental factors like fake news and rumor-mongering.

Schools can develop social media literacy courses that analyze real-world cases to demonstrate the positive impact of prosocial behaviors (e.g., the social value of online philanthropy) and the harmful consequences of antisocial actions (such as cyberbullying, misinformation, and their legal violations). Through role-playing exercises, students can experience firsthand how different behaviors affect society. Additionally, schools should organize virtual public welfare campaigns like social media fundraising and collaborative information sharing to strengthen students' social awareness through practical engagement. Parents need to proactively monitor children's social media habits by analyzing platform content during daily conversations—such as discussing the positive impact of charitable news or examining how anonymity in online conflicts may have adverse consequences. Furthermore, parents should help children establish usage plans, including setting daily time limits to cultivate self-control and mitigate the negative effects of excessive screen time [6].

5.2 Future Study Direction

Future study could broaden its scope by expanding the beyond its current focus on adolescents and young adults to include middle-aged, elderly individuals, rural residents, and other demographic groups. This would enable analysis of behavioral differences in social media usage across age groups, geographical regions, and occupational categories, thereby enhancing the general applicability of findings. Additionally, future studies might investigate cultural context-specific variations, such as how collectivist cultures that emphasize group solidarity contrast with individualistic cultures that prioritize personal expression.

In the future, research can compare the characteristics of social media behaviors in different cultural backgrounds and explore the influence of cultural factors on the relationship between the two, so that the research conclusions have more global reference value.

6. Conclusion

This study investigates the impact of social media on prosocial and antisocial behaviors, focusing on understanding the mechanisms and differences in their manifestations within digital environments. The research reveals that social media platforms can promote prosocial behaviors through positive content dissemination and interactive engagement. Meanwhile, the study demonstrates that anonymity and emotional amplification effects may lower the moral threshold for antisocial behaviors, leading to covert and scaled-up characteristics in cyberbullying, malicious communication, and information dissemination. Although both prosocial and antisocial groups rely on social media interactions, significant differences exist in information preferences and behavioral drivers—the former is driven by positive content and proactive participation awareness, while the latter is easily influenced by a negative environment and lack of self-control. This study proposes practical recommendations for schools to implement media literacy courses, parents to enhance guidance, and individuals to strengthen self-discipline. At the research level, it suggests expanding the sample scope to incorporate cross-cultural perspectives. The findings not only offer valuable insights for understanding social behaviors in the digital age but also hold practical significance in guiding teenagers to use social media appropriately and reduce harmful online behaviors. Furthermore, this research lays the ground for future research.

For researchers, it is possible to further explore the differences in social media behaviors under different cultural backgrounds in the future, such as users' cognitive biases on online moral behavior in collectivist and individualistic societies.

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