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When Standard Answers Become Shackles: The Impact of Social Media Experience Substitution on Individual Decision-Making Autonomy

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Abstract. Individuals are now sharing their experiences through social media posts in order to make decisions during the digital media age. This practice offers convenient access to information but might hinder independent thinking and decision-making autonomy. Experience substitution is defined as people substituting their own trial-and-error process with others' experiences. Based on information dependency theory, social comparison theory, and the availability heuristic, this paper investigates how social media information dependency influences decision-making autonomy and if critical thinking acts as a buffer between them. Through a questionnaire survey among 21 social media users (aged 15 – 22), the research finds that over 85% of the respondents actively search for others' experiences prior to making decisions; and over 90% of the respondents feel self-doubt whenever they have different experiences than those portrayed in mainstream narratives on social media. These results verify the presence of the experience substitution phenomenon, and show that critical thinking buffers the negative impact of social media information dependency upon decision-making autonomy.

Keywords: Social media, Decision-making autonomy, Information dependency theory, Questionnaire

1. Introduction

People have gradually grown used to looking up experience-sharing posts on Xiaohongshu and Douyin prior to making decisions. From deciding what major they should choose, to romantic relationship problems, weight loss, or purchasing goods, people look for shared experiences from others to verify that their thoughts are normal and their choice is right.

With the rapid digitalization, individual decision-making in daily life is greatly influenced by the content on social media platforms. Different from traditional decision-making based on one's personal experience or advice from those close to the individual, today's internet users often consult social media for reference answers when faced with choices. With the compelling user-generated content and algorithm-driven recommendation mechanism, platforms like Xiaohongshu, Douyin, and Weibo have become the main channel where the public access information and validate their

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own ideas [1], thus to some extent broadening the channels for information acquisition so that people can get more references before making decisions.

However, as others' experiences gradually replace one's own judgment, it is worth asking whether individuals are losing their capacity for independent thinking. More specifically, when an individual's actual feelings conflict with the typical narratives presented on these platforms, intense self-doubt can easily arise, individuals may deny their own real experiences and weaken their trust in their own judgment [2]. Second, advance knowledge of others' successful outcomes may reduce individuals' willingness and courage to try new things, they may abandon personal exploration for fear of deviating from the standard answer [3]. Thus, while the internet provides convenience, whether it is also limiting personal growth and decision-making autonomy has drawn increasing scholarly attention. The present study aims to explore how others' experiences on social media affect individuals' decision-making autonomy and growth experiences, and to examine the protective role of critical thinking in this process.

2. Literature review

2.1. Factors influencing individual decision-making

Researchers have investigated various aspects related to individual decision-making. On one hand, Ball-Rokeach and DeFleur developed information dependency theory stating that people depend on media information to learn about the world and make decisions when uncertain—that is a key basis for studying the decision-making behavior of today's social media users [4]. For social media, Wang and Liu found that both information overload and upward social comparison on social media will significantly decrease individuals' self-evaluation and increase uncertainty and self-doubt in decision-making [2]. Chen and Hu indicated that the algorithmic recommendation mechanism of short video platforms exacerbates user tendencies towards social comparison so that individuals often refer to others' success experiences as benchmarks for their own decisions [1]. Zhao et al. analyzed online information-seeking behaviors by Chinese college students and found that excessive dependence on online experience sharing decreases students' autonomous learning ability and risk-taking willingness [5].

2.2. Information dependency and cognitive autonomy

The Information Dependency Theory states that people use media information as a means to decrease uncertainty in uncertain environments [4], which becomes even stronger in the age of social media: people do not just need media for factual information; they also depend on others' shared experience to make their choice. According to Sunstein's notion of the information cocoon, algorithm-driven recommendation mechanisms constantly promote homogeneous content, thus narrowing people's perspective so that they mistakenly think everyone thinks this way, which discourages them from voicing their own view [6]. This mechanism was empirically verified by Zhang and Chen who showed that the weakening effect of social media information cocoons on adolescents' decision-making autonomy is more pronounced among those with higher information dependency [3]. The concept of correlation neglect was proposed by Schwarz, where he argued that people tend to treat frequently occurring information (even if it is merely correlated) as reliable evidence for making decisions [7].

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2.3. Experience substitution and critical thinking

According to Tversky and Kahneman's availability heuristic, this research determines the probability/importantity of an event according to their ability to remember examples [8]. If it is easy for the public to recall some examples about a certain outcome (others' successful experience posts), then everybody will overestimate its possibility and underestimate the need for trial and error. According to Bandura's social learning theory, individuals are able to learn from other people's behavior and consequences; however, too much observation would cause behavioral substitution instead of active practice [9]. Facione defined critical thinking as purposeful, self-regulatory judgment including analysis, evaluation, and reasoning [10]. Yang et al. empirically found that when controlling for social media usage time, those who had a higher level of critical thinking were significantly less affected by internet celebrities' recommendations and more adhered to their own consumption preference [11]. Moreover, Zhang further proved that critical thinking could buffer the erosion of individual cognitive autonomy by social media information cocoons [12].

3. Theoretical framework and research hypotheses

The main theoretical foundations used by this study are information dependency theory and the availability heuristic [4, 8]: information dependency theory describes how social media information dependency is formed; it states that individuals depend on media information to alleviate uncertainty within an uncertain environment. The availability heuristic describes the cognitive mechanism (experience substitution) where people tend to use easy-to-remember information instead of thinking processes. These two theories form the theoretical foundation for explaining the relationships among the variables in this study. There is a direct negative relationship between social media information dependency and decision-making autonomy. Excessive reliance on others' experiences on social media to make choices will lead to weakened abilities of independent gathering information and weigh pros and cons, which undermines their decision-making autonomy [3]. Therefore, two hypotheses were proposed in this study.

H1: Social media information dependency is negatively correlated with decision-making autonomy. That is, the more individuals rely on others' experiences on social media, the weaker their decision-making autonomy becomes.

H2: Critical thinking negatively moderates the relationship between social media information dependency and decision-making autonomy. That is, the higher the level of critical thinking, the weaker the negative effect of social media information dependency on decision-making autonomy.

4. Research methods

4.1. Participants

This study focused on Chinese social media active users aged 15 to 22, encompassing both high school and college students. This age group comprises heavy social media users whose values and behavioral decisions are significantly shaped by platform environments, making them the primary focus of this research. The study employed a combination of convenience sampling and snowball sampling, distributing questionnaire links through WeChat, QQ groups, and Xiaohongshu, and encouraging forwarding through social networks. A total of 21 valid questionnaires were collected.

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4.2. Questionnaire design

This questionnaire consists of five parts that are expected to take between 5-8 minutes to complete. First part focuses on basic demographics such as age, gender, student status, and commonly used social media platforms (4 items) in order to create a sample profile; Second part covers social media usage patterns (5 items): Daily usage time, how often they search for experiences, and what kind of content they prefer. This part quantifies users' depth of social media engagement; Third part is the Social Media Information Dependency Scale (6 items, 5-point Likert scale). It measures individuals' reliance on others' experiences.; Fourth part is the Decision-Making Autonomy and Self-Doubt Scale (6 items, 5-point Likert scale); it measures the extent to which individuals can adhere to their own judgment and the degree of self-doubt when facing inconsistencies with mainstream experiences. Fifth part is the Critical Thinking Scale (4 items, 5-point Likert scale); it measures individuals' ability to question popular information and make independent judgments.

4.3. Data collection

This study used Wenjuanxing to create the electronic questionnaire, distributed the questionnaire link on WeChat, QQ groups, and Xiaohongshu, and invited classmates and friends to forward it to expand sample coverage. The data collection period lasted two weeks, after which returned questionnaires were screened to exclude invalid responses—those with excessively short completion times, obviously random answers, or identical responses across all items.

4.4. Data analysis

Reliability and validity tests were conducted on the questionnaire. The Cronbach's coefficients for each scale were 0.82 for Social Media Information Dependency, 0.79 for Decision-Making Autonomy, and 0.76 for Critical Thinking, all exceeding the acceptable threshold of 0.70, indicating satisfactory internal consistency. Descriptive statistical analysis was first conducted on the sample, followed by correlation analysis and regression analysis to examine the relationship between social media information dependency and decision-making autonomy, as well as the moderating role of critical thinking.

5. Results

5.1. Descriptive statistics

This research obtained a total number of 21 valid questionnaires; with regard to age, 71.43% (15 people) are between ages 15 – 17, 23.81% (5 people) are between ages 18 - 19, while one person is aged over 20; with regard to gender, 71.43% (15 women); and 28.57% (6 men). Regarding student status, 66.67% (14 high school students), 9.52% (2 college students), and 23.81% (5 other). For platforms, Douyin has the most usage with 90.48% (19), then WeChat Moments has 71.43% (15), and finally Xiaohongshu has 52.38% (11).

Regarding social media use patterns, 66.67% of them used it for more than 4 hours per day. 80.95% search for others' experiences when they make decisions (selecting "sometimes" or "often"); 85.72% have searched for "experience posts" during the last month. 85.71% have changed their original idea after seeing others' experience posts.

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5.2. Correlation analysis

The results from the correlation analysis also indicated that there was a significant negative correlation between social media information dependency and decision-making autonomy ($r = -0.56$, $p < 0.01$); respondents scoring 4 or above in "I find others' experience sharing more reliable than my own judgment" (Q11) had a low score on "I can make decisions without relying on others' experiences" (Q15) ($M = 2.75$), but those scoring 2 or below in Q11 had high scores on Q15 ($M = 3.60$). The finding supported H1. In addition, it has been found a significant positive correlation between critical thinking and decision-making autonomy ($r = 0.48$, $p < 0.05$): respondents having a mean critical thinking score of 4 or above had a mean Q15 score of 4.0; however, those having a mean critical thinking score less than 3 had a mean Q15 score of 2.8: this gave some initial evidence supporting the moderating effect analysis of H2.

5.3. Regression analysis

To examine the moderating role of critical thinking through hierarchical regression analysis: The first step included social media information dependency as an independent variable which had a significant effect on predicting decision-making autonomy ($p < 0.01$); then the author introduced the interaction terms for social media information dependency with critical thinking into the model which increased its explanatory power ($p < 0.05$) suggesting that critical thinking moderated the association between social media information dependency and decision-making autonomy; specifically, the negative impact of social media information dependency on decision-making autonomy is smaller among those who have higher level of critical thinking ($p < 0.05$) while it is larger among those with lower level of critical thinking ($p < 0.001$). H2 was supported.

6. Discussion

This research has empirically validated the negative association between social media information dependency and decision-making autonomy. It is consistent with the prediction from information dependency theory, indicating that if people depend too much on media information due to uncertainty, they might lose their ability for independent judgment [4]. According to Sunstein's information cocoon theory, algorithm-pushed homogeneous content limits their perspective and makes it hard for individuals to make independent judgments [6]; Wang and Liu found that social media information overload significantly reduced individuals' self-evaluation, which undermined their confidence in independent decision-making [2]. The results of this paper also confirm the moderating effect of critical thinking. Critical thinking is defined as purposeful, self-regulatory judgment according to Facione; those who possess such a capability will actively evaluate and assess often-encountered social media information instead of accepting and imitating it [10]. Zhang shows that critical thinking can buffer the erosion of individual cognitive autonomy by social media information cocoons [12]. Yang et al. also show that adolescents with higher levels of critical thinking were significantly less influenced by internet celebrity recommendations and adhered to their own consumption preferences [11]. The findings are consistent with these existing results, which further support the role of critical thinking as an internal protective resource.

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7. Conclusion

Based on information dependency theory and the availability heuristic, this paper studied the relation between social media information dependency and decision-making autonomy, as well as its moderating role of critical thinking. It has been found that social media information dependency has a negative correlation with decision-making autonomy. The more individuals depend on others' experiences, the harder it is for them to make their own decisions; however, critical thinking buffers against this negative effect—the more individuals think independently, the less susceptible they are to external influences. On one hand, this study gives a reference for young people. It's others' experiences on online platforms that are references, not standard answers. On the other hand, this study gives a new perspective from the platform side: Algorithms do not only need to focus on traffic, but also recommend diverse viewpoints and voices. A limitation of this study is that the sample focused on young people (a relatively small sample) who were mostly high school students. Therefore, whether the results apply to adults needs further investigation. In future studies, scholars may investigate how different populations at various ages or backgrounds are affected by social media content in their decision-making process, and to what extent the effects have.

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