The Relationship Between Minority Opinions and Platform Interaction Mechanisms in New Media Platforms

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Abstract:

With the rapid development of new media technologies, short video platforms and other new media forms have gradually become essential channels for people to access information and express their views. The expression and dissemination of minority opinions present a distinct landscape in the new media environment compared to the traditional media era. Based on the Spiral of Silence Theory, this study explores the relationship between minority opinions and platform interaction mechanisms in new media environments. Through literature review and inductive summarization methods, it analyzes the impact of new media platforms' technological mechanisms and social functions on the expression of minority opinions, as well as the evolution of the Spiral of Silence Theory in the new media context. The study finds that the interactivity and anonymity of new media platforms provide more opportunities for the expression and dissemination of minority opinions. However, information cocoons and group polarization phenomena may also impose restrictions on minority opinions. This study aims to enrich theoretical research in the field of mass communication, mitigate the effects of information cocoons, promote diversified expression of viewpoints, and facilitate opinion inclusiveness on platforms.

Keywords: Spiral of Silence, new media, influence, opinion, group polarization

1. Introduction

The Spiral of Silence theory was proposed in 1974 by the German scholar Elizabino Elnoemann, who advocated that mass media have strong social effects and are conducive to forming more unified social views. This theory suggests that if people find their opinions to be part of the "majority" or "dominant" views, they will first observe the surrounding opinion environment and then actively and boldly express their own views. However, if they discover that their opinions are part of the "minority" or "disadvantaged"

views, a spiraling developmental process will occur. As one side gains strength, the other side's voice gradually fades, thereby forming a situation where the "minority" or "disadvantaged" views fall silent or conform to the majority out of fear of isolation.

The rise of digital media has reconstructed the traditional public opinion sphere. Short-video platforms, with their characteristics of immediacy, strong interactivity, and algorithm-driven mechanisms, both challenge the original assumptions of the Spiral of Silence theory and provide new opportunities for its expansion. This study focuses on how platform technological features (such as the information cocoon and anonymity mechanisms) influence users' opinion expression strategies. It combines empirical case studies to explore the survival logic and evolutionary patterns of minority views, with the aim of providing theoretical support for building an inclusive online public opinion ecosystem.

2. The Origin and Development of the Spiral of Silence Theory

The construction of the Spiral of Silence theory began in the 1970s with the exploration of the mechanisms of public opinion formation by the German sociologist Elisabeth Noelle-Neumann. In 1974, through her observation of voters' decision-making behavior in the parliamentary elections of the Federal Republic of Germany, she discovered a significant tendency towards conformity in individuals' expression of opinions: when the public perceives that their views conflict with the "mainstream opinion" shaped by the media, they tend to hide their true positions or align with the majority to avoid the risk of social isolation. This phenomenon was particularly prominent in the traditional media-dominated communication ecology, where newspapers and television, with their strong agenda-setting capabilities, could construct a "climate of dominant opinion" through selective reporting, thereby suppressing the expression space for non-mainstream views. In 1980, Noelle-Neumann systematically elaborated on this theory in The Spiral of Silence: Public Opinion—Our Social Skin, emphasizing that mass media, by creating an "opinion environment," exert psychological pressure on the public, causing the process of public opinion formation to exhibit a spiral reinforcement characteristic of "dominant expansion—marginal silence."

However, since its inception, the theory has sparked controversy in academia. Critics argue that Noelle-Neumann overly focused on the psychological mechanism of "fear of isolation" while neglecting the impact of structural factors such as cultural differences and the characteristics of communication media. For example, American scholars Glynn et al. [17] demonstrated through cross-cultural research that individuals in collectivist cultures are more susceptible to group pressure, while opinion expression in individualist societies is more independent. With the rise of digital technology, the theory's applicability faces new challenges. The anonymity of new media platforms weakens social evaluation pressure, allowing some users to break through the threshold of silence and form a "counter-spiral of silence" phenomenon [18]; algorithmic recommendation systems have given rise to a "dual-spiral model," in which mainstream and marginal opinions alternately gain the upper hand in dynamic competition [2]. These theoretical extensions not only correct the original hypothesis's linear logic but also reveal how the complex interplay of technology, psychology, and social structure reshapes the contemporary public opinion ecology.

3. The Significance of the Spiral of Silence Theory in the New Media Environment

3.1 Characteristics of New Media Platforms

The following significant features are evident on new media platforms:

3.1.1 Information Cocoons

The recommendation algorithms of short-video platforms can easily trap users in "information cocoons," exposing them to more homogeneous information. This leads to an incomplete understanding of specific events, making users more susceptible to mainstream opinions and less willing to express dissenting views, which is also why short-video platforms' recommendations...

3.1.2 Rapid Dissemination and Strong Timeliness

Information on short-video platforms spreads at an extremely fast pace, with a single video potentially garnering a huge number of views within hours. This rapid flow of information exacerbates the spiral of silence effect, as viewers may choose to remain silent even if they hold different views, to avoid being "mobbed" online or excluded by the group.

3.1.3 Digitalization

The organic combination of various communication symbols, such as sound, images, text, and graphics, enriches the forms of information presentation.

3.1.4 Extensive and Trans-spatial-temporal Dissemination

Anyone can access and share information through the

Internet. The unrestricted nature of short-video platforms means that users are spread across countries and regions worldwide.

3.2 The Impact of New Media Platforms on the Spiral of Silence Theory

The rise of new media platforms has led the Spiral of Silence theory to exhibit different characteristics in a new environment.

3.2.1 Anonymity and the Counter-Spiral of Silence Phenomenon

The anonymity of short-video platforms emboldens some individuals to express their views more freely, leading to a counter-spiral of silence phenomenon. That is, netizens holding "minority" opinions do not hide their views simply because they conflict with mainstream opinions. Instead, as communication and interaction deepen, these minorities may gain more recognition and acceptance, thereby changing the direction of public opinion.

3.2.2 Strong Interactivity and Bidirectional Information Flow

The powerful interactive functions of short-video platforms enable users to participate in content dissemination and discussion through comments, likes, and shares. This interactivity enhances communication among users and provides opportunities for minority opinions to be seen and acknowledged by a broader audience.

4. The Relationship between Minority Opinions and Platform Interaction Mechanisms on New Media Platforms

4.1 Information Cocoons and Cognitive Limitations

Affected by the recommendation algorithm mechanisms of short-video platforms, users are prone to falling into "information cocoons," where the information they encounter is relatively homogeneous. This leads to an incomplete understanding of specific events and makes them more susceptible to mainstream opinions, thereby discouraging them from expressing dissenting views. This phenomenon, to some extent, restricts the expression and diffusion of minority opinions.

4.2 Counter-Spiral of Silence Phenomenon

The anonymity of short-video platforms emboldens some individuals to express their views more freely, leading to the emergence of a counter-spiral of silence phenomenon.

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4.3 Pendulum Spiral

The pendulum spiral refers to a situation where two opposing opinions are evenly matched. In the balance point between them, especially in Internet media, the mainstream opinion will swing back and forth. There are countless supporters and opponents for any given opinion, making it easy to form two dominant positions that can transform into each other. Thus, the pendulum spiral is characterized by this oscillating dominance of opinions.

4.4 Vortex Spiral

A vortex spiral refers to a situation where individuals hold diverse opinions initially but gradually converge toward a unified view after a period of interaction and adjustment. Similar to how water flows from all directions to form a vortex draining through a single outlet, opinions in a vortex spiral eventually align around a central consensus. The vortex spiral unfolds in three stages. In the first stage, a social event widely publicized by online media emerges and captures public attention. In the second stage, the public expresses diverse opinions on online platforms, with like-minded groups forming alliances and refining their views internally. The collision of different groups creates a large "vortex" of public opinion. In the third stage, a major vortex forms around the mainstream public sentiment. After an intense social discussion, one or several opinions that withstand scrutiny are accepted by the majority and rise to become the mainstream public sentiment. Objectively, the vortex spiral is a more rational and scientific approach compared to the pendulum spiral. It lacks emotional external forces and is driven by rational discussions among individuals aiming for the best outcome.

4.5 The Impact of Interactive Behaviors

According to the Spiral of Silence theory, existing research assumes that audiences will either express their opinions or remain silent after perceiving the climate of opinion, thereby making corresponding behaviors to express their views. This is based on the Spiral of Silence theory. Research findings show that when individuals perceive themselves as holding the majority opinion, feelings of loneliness and fear diminish. They interact more actively with like-minded people, speak more bluntly, and reply more frequently to others' comments. In contrast, when audiences perceive themselves as holding minority

opinions, they tend to remain silent, engage in fewer discussions, and give fewer likes or shares.

4.6 Group Polarization

Under the influence of "information cocoons," users form various "tribes," a phenomenon known as "re-tribalization," which often overlaps. Each user may belong to one or multiple Internet "tribes." Group polarization has a broader driving force and influence than individual polarization. When individuals are in a closed environment, their self-perception may become distorted, leading to or exacerbating social prejudices, which is an irrational mindset. With continuous information exposure and frequent interactions with fellow tribe members, the amygdala in the brain remains in an active state. In such a situation, when the tribal group encounters dissenting views, there is a high likelihood of extreme emotional outbursts. This inflated group and self-identification hinder social interaction and are detrimental to social harmony.

5. Case Study Review

5.1 The Niufang Xiaochunhua Incident:A Battle between Algorithmic Visibility and Group Polarization

In November 2021, the top TikTok influencer "Niufang Xiaochunhua" faced a public opinion crisis due to team management and the fabrication of a persona. According to Zhao Danning's [8] web crawler data analysis, the response video titled "Thank You for Being with Me All the Way" received a total of 62,000 comments, of which 34.2% were negative, 50.1% were positive, and 15.7% were neutral. In the early stages of the incident, supporters gained visibility through algorithmic recommendations, creating a polarized comment section. However, as the situation escalated, negative sentiment expanded at a daily rate of 23%, eventually forcing the party involved to delete the video and issue a public apology. TikTok's traffic distribution mechanism played a dual role in this process: on one hand, algorithmic empowerment allowed initial minority support opinions to break through the "silence threshold" and enter the recommendation pool through likes, forming a counter-spiral of silence phenomenon; on the other hand, the "re-tribalization" of closed communities accelerated the resonance of negative emotions, with 72% of interactions concentrated in homogeneous communities [8]. Group polarization effects led to the labeling and attack of dissenters (e.g., "paid trolls" or "whitewashers"), eventually pushing them back into silence. This case confirms the applicability of the "dynamic

equilibrium model," where algorithmic recommendations provide a brief window for minority opinions to express themselves, but group polarization reconstructs the online "climate of opinion," driving public sentiment back to the traditional spiral of silence path. It reveals the deep-seated contradiction between technological empowerment and social exclusion.

5.2 The Xuke Xin Incident

In March 2020, the overseas student Xuke Xin faced widespread criticism across the Internet for her controversial remarks on Weibo. According to Zou Chencheng's [16] tracking study, in the first week of the incident, the Weibo topic page views exceeded 800 million, with 89% opposing her views, but 11% of supporters continued to voice their opinions through anonymous accounts. Some "counter-silence" users expressed support in private social media while remaining cautious on public platforms, highlighting the differentiation of expression strategies. Weibo's anonymity mechanism provided minority supporters with a "safe space for expression," but their comments were mostly concentrated in secondary topics, with views only accounting for 3.2% of the main topic's views [16], thus being marginalized by the algorithm. After mainstream media intervention, the platform used trending topic pinning and topic merging to strengthen the dominant opinion. Critical reports by authoritative accounts such as People's Daily led to a 67% decrease in supporters' interaction rates, ultimately driving public sentiment toward a vortex spiral consensus [2]. This case shows that although anonymity reduces psychological fear of isolation, platform content control and algorithmic filtering still constitute structural suppression. The survival of minority opinions depends on "niches" (such as secondary topics).

6. Conclusion and Future Research Directions

6.1 Research Findings

Impact of New Media Platform Characteristics on the Spiral of Silence Theory:

The anonymity, interactivity, and information cocoons of new media platforms have given rise to new features of the Spiral of Silence theory in the new environment. These are characteristics of new media platforms. Anonymity allows minority opinions to be expressed, while interactivity enhances communication among users. However, information cocoons restrict the spread of minority opinions. Therefore, the anonymity of new media platforms has led to new features of the Spiral of Silence

theory in the new environment. Anonymity enables the expression of minority opinions, interactivity strengthens user communication, and information cocoons limit the dissemination of minority opinions.

Relationship between Minority Opinions and Platform Interaction Mechanisms:

The interaction mechanisms of new media platforms provide more opportunities for the expression and dissemination of minority opinions. However, the phenomena of information cocoons and group polarization may also restrict minority opinions. The expression and dissemination of minority opinions on new media platforms are influenced not only by platform characteristics but also by user behavior and psychological factors.

6.2 Future Research Directions

The Interaction between Algorithmic Recommendations and User Behavior:

Although existing research has already focused on the impact of the technical mechanisms of short-video platforms on the spiral of silence effect, the interaction between specific algorithmic recommendation mechanisms and user behavior is still not sufficiently explored. Future research can further investigate how algorithmic recommendations influence users' information choices and opinion expression.

Interdisciplinary Comprehensive Research: Combining the interdisciplinary perspectives of sociology and communication studies, future research can delve into the relationship between minority opinions and platform interactions on short-video platforms.

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