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From Revolution to Representation: Evolution of Government Women Portrayals in Mainland China Since 1949

Keywords: China, women portrayals, Cultural Revolution, co-occurrence, node embedding

Extended Abstract

Unlike Western models of feminism that often emerged through mass movements focusing specifically on women's rights, the evolution of feminism in China is deeply embedded within the country's broader sociopolitical transformations (Li 2000; Shen 2016; Stacey 1983). As a revolutionary political force, the Chinese Communist Party (CCP) established in 1921 positioned itself as a pioneer for gender equality and subjugated it as a part of its political programs.

However, the course of CCP's gender policies is definitely full of complexities and transformations. In academia, the controversy mainly centers around the period of the Cultural Revolution. As a time period that is in sharp contrast with post-reform era, the assumption that the Cultural Revolution represented a time of relative gender equality has become one of the most important evidence for Western analysis of opening-up reform's influence on Chinese women (Honig and Hershatter 1988; Woo 1994). To be more specific, during the Cultural Revolution, political propaganda related to gender equality appears to be self-conflicting. On the one hand, aligning with CCP's pre-Cultural Revolution narrative, women were still encouraged to actively participate in industrial production following the demands of the production plan. On the other hand, the All-China Women's Federation (ACWF), which is responsible for women's affairs, was suspended (Entwisle and Henderson 2000).

This project aims to explore the evolution of women portrayals in Chinese national political propaganda before, during, and after the Cultural Revolution. As the evolution of CCP's gender-related policies and propaganda reflects a complex alternation between progress and reaction, further exploration of the changes in women's relative position within the official discourse system of PRC will provide a deeper understanding of the relationship between CCP's evolving ideological commitments and their influence on actual women status considering Chinese society's social dicourse system.

The data used in this study are mainly the historical archive of a Chinese state-owned newspaper, People's Daily, from 1946 to 2003. Previous research on these Chinese state news media shows that most of their reports tend to cite only one source that is or is related to CCP. For this reason, this corpus is helpful in providing insights into governmental stance on certain social topics, which is the main focus of this study (Wang et al. 2018; Wu 1994). The archive is available online at https://github.com/fangj/rmrb.git, including more than 8.64 million articles and 1.89 billion tokens. Available features include article titles, contents, and date of publication.

The methodology of this study is primarily **graph-based**. The yearly newspaper corpus is represented as co-occurrence graphs, where vertices represent words and edge weights indicate the frequency of co-occurrence between words in a sliding window. Unlike traditional methods of text data analysis such as word embeddings that focus primarily on local co-occurrence patterns, node embeddings offer a more comprehensive perspective. By leveraging random walks across the graphs, node embeddings are more able to capture the overall structure of the co-occurrence graph and more subtle relationships among words.

After the corpus is represented as annual graphs, the mining of patterns related to women portrayals is carried out from different perspectives. Firstly, to have an overall understanding of the structural and semantic roles of women related words in the graphs, I explore the evolution of properties of words, mainly focusing on the closeness centrality scores, an important measurement of vertices' relative importance in the graph topologically. The closeness centrality score is measured by calculating the multiplicative inverse of the average shortest path distance from a given vertex to all other vertices in the graph. This metric captures how efficiently information can spread from one vertex to another.

To evaluate the impact of the end of the Cultural Revolution on women's role in Chinese state-owned media, a difference-in-differences analysis was conducted on the monthly time series of centrality scores, which were standardized using Z-scores. The result of which is presented in Figure 1. The research dictionary was divided into two parts: women-related words as the treatment group and non-women-related words as the control group, following the same categorization used during its construction. The parallel trends examination revealed that both groups had similar evolutionary trends prior to the intervention (the end of the Cultural Revolution). However, the post-intervention analysis showed that after the intervention, the centrality scores of women-related words began to decline, while those of the control group remained relatively stable. This finding seems to suggest that the overall importance of women-related words (vertices) in the media discourse weakened in general following the end of the Cultural Revolution.

To further explore the semantic context of women-related words in different time periods, Node2Vec models were constructed based on the annual graphs. After that, the top $1,000$ words that have the highest average cosine similarity scores with the women-related word lists were identified in each Node2Vec model, capturing the words most closely associated with women-related words in the yearly embeddings. In this way, related word lists were constructed for different years, which were then compared cross years using Jaccard Similarity, providing a dynamic view of how the semantic context of women-related words had evolved over time. The result of which is presented in Figure 2. It's quite clear that the beginning and end of the Cultural Revolution influenced the semantic environment of women-related words to some extent. However, these changes in the semantic environment appear to lag behind the historical events that mark the transitions between different time periods. This delay may be attributed to the inherent conservatism of cultural patterns, which tend to evolve more slowly than political milestones.

The similarity matrix quantitatively indicates that the contexts of women-related words shifted significantly across different time periods, but it does not provide insight into the specific cross-period differences. To address this, I created Figure 3, a Venn Diagram, which shows the representative nouns that are shared or unique among different time periods. The diagram qualitatively reveals the notable shifts in the three historical time periods. During the Cultural Revolution, women-related words were more closely associated with abstract concepts such as "owner", "Weltanschauung", and "mind", reflecting the ideological focus of that era, where women's roles were tied to the broader revolutionary ideals and philosophical notions. In contrast, after the Cultural Revolution, women-related words became more closely aligned with terms related to social development, such as "industry", "science and technology", and "deficit", signifying a shift toward practical and economic aspects as the focus of Chinese government transitioned to modernization and economic reform. These patterns of reformation reflect a broader transformation in cultural narratives, where portrayals of women were framed within the broader ideological context of governmental rule, rather than following the linear developmental trajectories proposed by traditional modernization theories.

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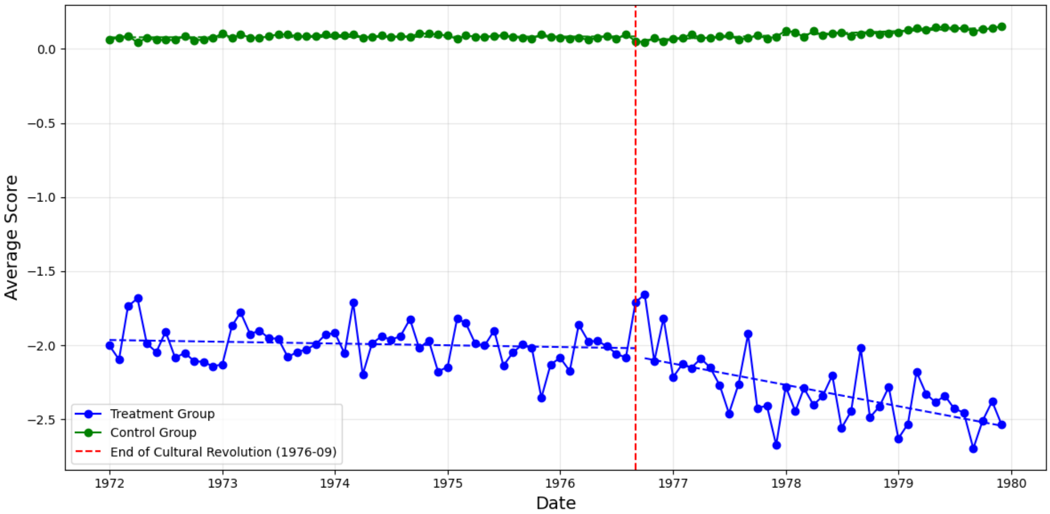

Figure 1: Trend of Centrality Score

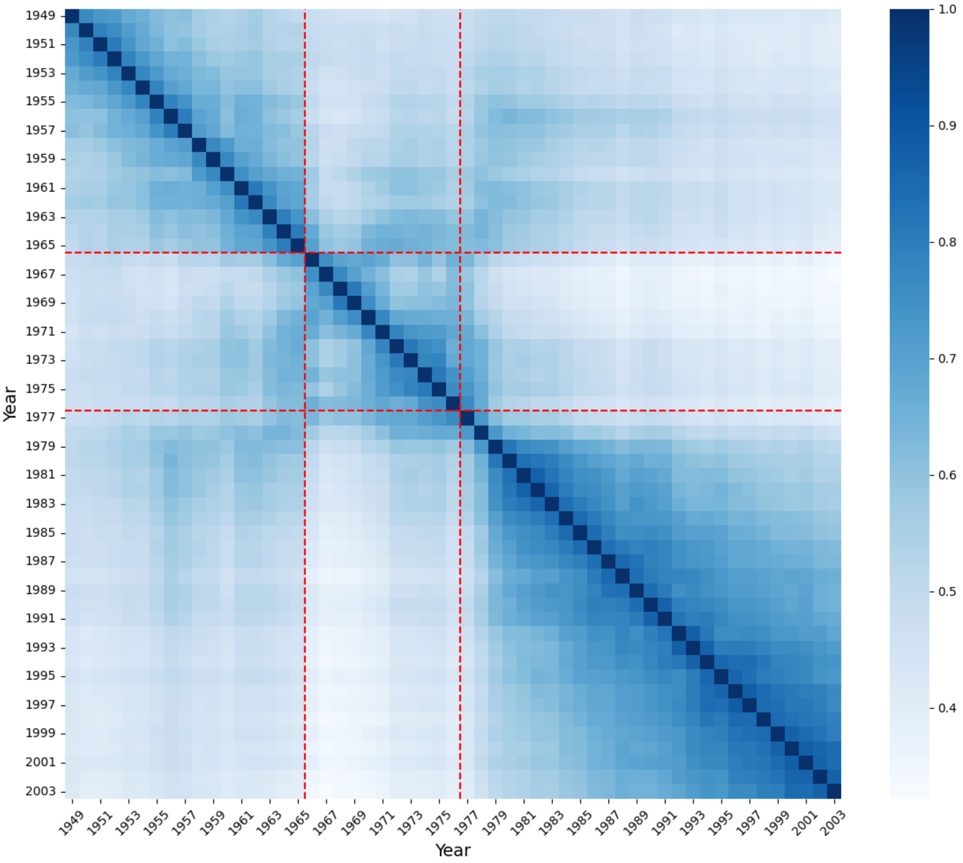

Figure 2: Cross Year Jaccard Similarity of Related Word lists

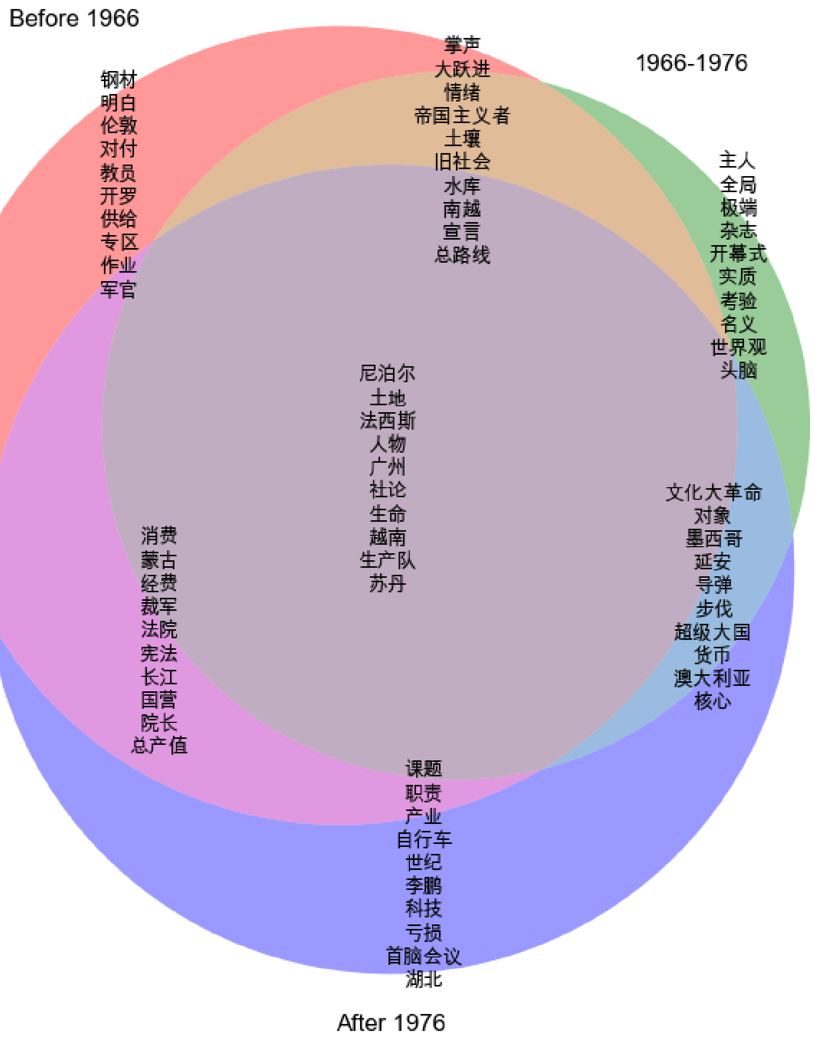
Before 1966
钢材
明白
伦敦
对付
教员
开罗
供给
专区
作业
军官
掌声
大跃进
情绪
帝国主义者
土壤
旧社会
水库
南越
宣言
总路线
1966-1976
主人
全局
极端
杂志
开幕式
实质
考验
名义
世界观
头脑
尼泊尔
土地
法西斯
人物
广州
社论
生命
越南
生产队
苏丹
文化大革命
对象
墨西哥
延安
导弹
步伐
超级大国
货币
澳大利亚
核心
消费
蒙古
经费
裁军
法院
宪法
长江
国营
院长
总产值
课题
职责
产业
自行车
世纪
李鹏
科技
亏损
首脑会议
湖北
After 1976

Figure 3: Venn Diagram of Related Nouns across Three Time Periods