Irregularities in the Handling of Retracted Papers in Chinese Academic Journal Databases: Manifestations and Recommendations

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Abstract

Objective To analyze the improper handling practices of sporadic and large-scale retracted papers in CNKI, Wanfang, and VIP databases, and to propose targeted recommendations, aiming to provide reference for standardizing the processing of retracted papers in databases. Methods This study investigated the improper handling manifestations of 404 retracted papers corresponding to 370 retraction notices from sporadic retractions, as well as large-scale retractions, across the three databases (CNKI, Wanfang, and VIP). For each database, we enumerated the quantities of: (1) papers that should have had retraction notices published but have not yet; (2) papers directly deleted after retraction notice publication; (3) papers not properly processed after retraction notice publication; (4) papers directly deleted without publishing retraction notices; (5) papers directly marked with retraction flags without publishing retraction notices; and (6) papers retracted in other databases but left unprocessed in the current database. Results In CNKI, Wanfang, and VIP databases respectively, the numbers were: 282, 205, and 135 papers that should have had retraction notices published but have not yet; 58, 97, and 213 papers directly deleted after retraction notice publication; 104, 189, and 265 papers not properly processed after retraction notice publication; 119, 96, and 77 papers directly deleted without publishing retraction notices; 72, 0, and 0 papers directly marked with retraction flags without publishing retraction notices; and 91, 109, and 58 papers retracted in other databases but left unprocessed in the current database. Conclusion Relevant authorities should formulate standardized retraction guidelines and strengthen supervision of database retractions, while databases should enhance awareness of retraction standards and establish and improve retraction systems, thereby strengthening academic misconduct governance and promoting research integrity construction.

Full Text

Misconduct Performances and Suggestions for Processing Retraction Papers of Chinese Journal Databases

Abstract: [Purpose] This paper analyzes misconduct in the processing of both sporadic and large-scale retraction papers in CNKI, Wanfang, and Weipu databases, offering targeted recommendations to provide a reference for standardizing retraction paper processing. [Methods] We investigated misconduct in processing 404 retraction papers corresponding to 370 retraction statements across the three databases, counting for each database: papers that should have but had not yet published retraction statements; papers deleted directly after retraction statement publication; papers not processed according to standards after retraction statement publication; papers deleted without published retraction statements; papers marked as "retracted" without published retraction statements; and papers retracted in other databases but left unprocessed in the target database. [Findings] In CNKI, Wanfang, and Weipu databases respectively: 282, 205, and 135 papers lacked required retraction statements; 58, 97, and 213 papers were deleted directly after retraction statement publication; 104, 189, and 265 papers were not processed according to standards after retraction statement publication; 119, 96, and 77 papers were deleted without retraction statements; 72, 0, and 0 papers were marked as retracted without retraction statements; and 91, 109, and 58 papers retracted in other databases received no processing. [Conclusions] Relevant departments should formulate standardized retraction guidelines and strengthen database supervision, while databases must enhance awareness of retraction standards and establish robust retraction systems to strengthen academic misconduct governance and promote research integrity.

Keywords: Chinese journal databases; Retraction statements; Retraction paper processing; Misconduct performances

In recent years, Chinese authors have experienced frequent large-scale retraction incidents in international journals, provoking strong reactions in the academic community. Notable cases include the 2009 *Acta Crystallographica* retraction (70 papers) [1], the August 2015 retraction by Springer Nature Group (64 papers, mostly by Chinese authors), the April 2017 retraction of 107 papers in *Tumor Biology* (primarily by Chinese authors) [2], and the 2019 retraction by *Journal of Fundamental and Applied Sciences* (434 papers) [3]. In contrast, Chinese academic journals have seen far fewer retractions. Previous studies have examined 45 retraction statements (55 papers) before 2011 [5], 83 retraction statements (92 papers) in CNKI up to November 2013 [6], 38 retraction statements (59 papers) in Wanfang up to December 2015 [7], and 54 retraction statements across three major Chinese databases from 2017-2019 [8]. Scientific and standardized processing of retraction papers maximizes their function in purifying the academic environment. Existing research has focused on distribution patterns [9], characteristics [3][10][11][12], discovery mechanisms [13], citation patterns [14][15],

and governance of unretracted problematic papers [16], with limited attention to processing standards [1][17]. However, no studies have examined the hidden quantitative relationships among various misconduct types, nor have they assessed whether misconduct has improved over time. This study quantitatively investigates misconduct in processing retraction papers across three major Chinese academic journal databases from their establishment through December 31, 2021, examining six categories of processing failures to provide references for standardized retraction processing and academic integrity promotion.

1.1 Data Sources and Research Methods

Data were collected from June 6-10, 2022. First, we searched CNKI, Wanfang, and Weipu databases using advanced search functions with terms including "retraction statement," "retraction announcement," and "retraction application" in titles, keywords, abstracts, and subjects, covering publications through December 31, 2021. We manually screened and downloaded valid retraction statements (defined as any document expressing intent to retract), recording for each database the statement title, retraction date, and original publication date. Secondary searches were conducted using terms like "statement," "apology statement," and "retraction apology," with duplicates removed. Next, we investigated sporadic retractions by searching each database for individual retracted paper titles to determine: retrievable papers, papers marked as "retracted," and linked retraction statements. We also searched by journal title to identify problematic papers that should have been retracted (if a database indexed a journal during the year a paper was published and retracted, it should have published a retraction statement, marked the paper, and linked the statement). From these investigations, we derived six metrics for each database: papers lacking required retraction statements; papers deleted directly after retraction statement publication; papers not processed according to standards after retraction statement publication; papers deleted without retraction statements; papers marked as retracted without retraction statements; and papers retracted in other databases but left unprocessed. Finally, we examined large-scale retractions (Dong Peng and Liang Ying cases) by searching author name and affiliation across the three databases to count retrievable retracted papers, papers marked as retracted, and linked retraction statements. The data collection and statistical workflow is shown in Figure 1 [Figure 1: see original paper].

1.2 Concept Definitions and Quantitative Relationships

"Misconduct" in this context refers to retraction practices that violate established guidelines including COPE's 2009 Retraction Guidelines, the 2018 Medical Journal Publishing Ethics Code, CAST's 2019 Scientific Journal Publishing Ethics Code, and CNKI's retraction standards. "Non-standard processing after retraction statement publication" refers to papers not marked as retracted, lacking retraction watermarks, and not linked to retraction statements. "No processing of other databases' retractions" means papers retracted in other databases

receive no retraction statement, marking, or watermark in the target database.

The following quantitative relationships exist within each database (all quantities refer to the same database): Papers lacking required retraction statements = Total problematic papers indexed - Papers corresponding to published retraction statements. Papers deleted directly after retraction statement publication = Papers corresponding to retraction statements - Retrievable papers corresponding to retraction statements. Total deleted papers = Total problematic papers indexed - Total retrievable papers. Papers deleted without retraction statements = Total deleted papers - Papers deleted after retraction statement publication. Papers marked as retracted without retraction statements = Total papers marked as retracted - Papers marked as retracted after retraction statement publication. Papers receiving no processing = Retrievable papers without retraction statements - Papers marked as retracted without retraction statements.

2.1 Analysis of Misconduct in Sporadic Retraction Processing

After removing duplicate retraction statements across databases, we identified 370 valid retraction statements covering 404 retracted papers from 313 journals. CNKI, Wanfang, and Weipu published 123, 164, and 231 retraction statements respectively, with 27 statements shared between CNKI and Wanfang, and 86 between Wanfang and Weipu. Among the 404 retracted papers, 102 were completely deleted from all three databases, while 302 remained retrievable in at least one database. Of these retrievable papers, CNKI, Wanfang, and Weipu had 223, 201, and 110 respectively, with 135 retrievable in both CNKI and Wanfang, 75 in CNKI and Weipu, 86 in Wanfang and Weipu, and 64 in all three databases. Applying the quantitative relationships from Section 1.2 yielded the data presented in Table 1 .

Table 1 Retraction Statement Publication and Misconduct in Sporadic Retraction Processing (Unit: papers)

[Table content would appear here with the six categories of misconduct for each database]

Our investigation revealed that during the publication years of the 404 retracted papers, CNKI, Wanfang, and Weipu indexed 400, 390, and 400 journals respectively, meaning they should have processed 400, 390, and 400 problematic papers each. Misconduct manifested in six areas:

2.1.1 Failure to Publish Required Retraction Statements All three databases failed to publish required retraction statements for numerous papers. As shown in Table 2 , CNKI, Wanfang, and Weipu had 282 (70.50%), 205 (52.03%), and 135 (33.75%) papers lacking required statements respectively. These unprocessed papers were either deleted directly, marked as retracted without statements, or left completely unmarked and unwatermarked. Such papers remain available for download, reading, and citation like normal publications,

with potentially catastrophic consequences if erroneous data from medical or engineering papers are cited, causing significant negative impacts on academia.

2.1.2 Direct Deletion After Retraction Statement Publication All three databases showed far fewer retrievable papers than papers corresponding to retraction statements, indicating widespread direct deletion after statement publication. CNKI, Wanfang, and Weipu deleted 58 (49.15%), 97 (51.32%), and 213 (80.38%) papers respectively after publishing retraction statements. According to CNKI's publication status change guidelines, deletion is reserved for content that is defamatory, infringes rights, involves state secrets, is subject to court judgments or government enforcement, or contains illegal or harmful information [18]. The retracted papers in this study did not meet these criteria and should have been retained with "retracted" markings, watermarks, and links to retraction statements to ensure traceability.

2.1.3 Non-Standard Processing After Retraction Statement Publication Only CNKI marked 14 retracted papers as "retracted" after statement publication, but without watermarks or links to statements. Wanfang and Weipu failed to mark any retracted papers, set watermarks, or establish links. This reveals significant deficiencies in processing and publicizing retractions, undermining their intended function of alerting readers. Consequently, retracted papers continue to be cited extensively, with serious repercussions. Authors and editorial offices must verify the authenticity and validity of references to avoid citing retracted work.

2.1.4 Direct Deletion Without Retraction Statements CNKI, Wanfang, and Weipu deleted 44.25%, 48.98%, and 72.50% of their total problematic papers respectively, with 29.75%, 24.37%, and 19.25% deleted without publishing retraction statements. As platforms documenting scientific history, databases should comprehensively record all literature and development processes while promptly identifying and correcting errors to promote healthy scientific development [13]. Increasing numbers of deletions without statements have severe consequences: they eliminate traceability, leaving readers who downloaded papers before deletion confused and skeptical about database credibility, while also removing the deterrent effect of retractions on academic misconduct, undermining integrity efforts.

2.1.5 Direct Marking as "Retracted" Without Statements Only CNKI marked 72 papers as "retracted" without publishing statements, while Wanfang and Weipu had none. This practice lacks scientific rigor and prevents readers from understanding retraction reasons. If other databases fail to mark these same papers, they remain available for citation, with similarly serious consequences for misconduct governance and integrity building.

2.1.6 No Processing of Retractions from Other Databases None of the three databases linked retraction statements to retracted papers or set retraction watermarks. As shown in Table 1, CNKI, Wanfang, and Weipu left 91, 109, and 58 papers respectively unprocessed when retractions were published in other databases—no statements, no markings, no watermarks. Since readers rarely verify retraction status across multiple databases, inter-database coordination is essential for effective retraction processing.

2.2 Analysis of Misconduct in Large-Scale Retraction Processing

We also examined misconduct in two domestic large-scale retraction cases: Dong Peng and Liang Ying.

2.2.1 Dong Peng Retraction Case In 2016, media reported on Dong Peng's academic misconduct. Dong, formerly a clerk at Carlstar (Meizhou) Rubber Products Co., fabricated identities as a collaborator with renowned university PhDs and postdocs, falsified research projects, and extensively plagiarized published papers [12]. From 2011-2016, he published 681 papers under Carlstar, over 90 under Castar Group, and over 50 under AIP Group in CNKI, totaling 821 papers [12]. Additional searches yielded over 50 papers under "Dong Peng + Tongda Management" and over 20 under "Dong Peng + Shunda Management" [19], with other affiliations including Yida and Zhongyi Consulting Management Companies [20]. Our search results across the three databases are shown in Table 2 .

CNKI, Wanfang, and Weipu had 532, 334, and 582 retrievable papers respectively. CNKI marked 517 as "retracted," leaving 15 unmarked including "Discussion on Enterprise Master Production Planning" and "Transformation and Development Path of China's Air Cargo." Wanfang and Weipu marked none. Based on publication and retrieval numbers, CNKI deleted at least 309 papers from the three groups without statements, an increase of at least 30 papers since a 2018 study [12]. Among our 370 retraction statements, only CNKI published one "Retraction Announcement" in April 2016 for a paper by Dong Peng and Hu Yongjun in *Shanghai Educational Evaluation Research*, which was deleted after publication. Wanfang and Weipu published no statements. Dong Peng's case involved at least 895 papers requiring retraction in CNKI alone—4.9 times the 183 papers retracted by Japanese anesthesiologist Yoshitaka Fujii [21]. Given similar journal coverage, Wanfang and Weipu likely indexed approximately 895 papers each, suggesting they deleted 599 and 313 papers respectively without statements.

2.2.2 Liang Ying Retraction Case Liang Ying, formerly a professor at Nanjing University's School of Social and Behavioral Sciences, had 125 search results on Baidu Academic linking to CNKI, Wanfang, Weipu, and other platforms, all showing "article not found" or "page unavailable" [22]. Searching "Liang Ying" and "Nanjing University School of Social and Behavioral Sciences" yielded only

2 papers in CNKI (duplicate publications of the same paper), 9 papers in Wanfang (2012-2017), and 10 in Weipu (2010-2017). None of our 370 retraction statements involved Liang Ying's papers. Using the same estimation method as for Dong Peng, Wanfang and Weipu likely deleted approximately 116 and 115 papers respectively without publishing retraction statements.

3. Recommendations

As platforms for academic paper dissemination, Chinese journal databases should promptly identify and properly process problematic papers to provide researchers with accurate, trustworthy, and authoritative literature. Scientific and standardized retraction processing with full traceability maximizes the deterrent effect of retractions, holding significant value for academic misconduct governance and research integrity promotion. We offer recommendations from two perspectives: relevant departments and databases.

3.1 Relevant Departments Should Formulate Retraction Guidelines and Strengthen Supervision Since 2006, Chinese government bodies have issued nearly 20 authoritative documents on academic misconduct governance and research integrity, including the *National Science Ethics and Academic Style Construction Education Key Points*, *Rules for Handling Research Integrity Cases*, and *Guiding Opinions on Handling Authors Involved in Concentrated Retractions*. While these documents are detailed, they rarely specify how Chinese academic journal databases should scientifically and standardize retraction processing.

Currently, only CNKI has implemented retraction standards: the *CNKI Network Publishing Literature Status Change and Content Correction Guidelines (Trial)* effective January 1, 2019, and its revised version effective June 1, 2022. However, our investigation shows incomplete implementation during both periods. For example, papers like "Gemological Characteristics and Structure Study of *Tridacna* from Nansha" and "Aging Factors and Their Effects on Ivory Products" were completely deleted after retraction statement publication. Additionally, a September 10, 2023 retraction statement in *Modern Teaching* appears empty in the CNKI interface. Neither Wanfang nor Weipu have established retraction guidelines, allowing deletion without statement publication upon author or editorial office request, facilitating improper paper removal. This chaotic situation urgently requires a nationally authoritative, universally applicable retraction guideline from relevant departments.

3.1.1 Formulate Retraction Guidelines The Ministry of Science and Technology, Ministry of Education, National Press and Publication Administration, Ministry of Industry and Information Technology, and State Administration for Market Regulation should jointly develop retraction guidelines to standardize database practices and enhance deterrent effects. Building on CNKI's trial and revised versions, guidelines should include: (1) Templates for retraction state-

ments, applications, and standards distinguishing "withdrawal" from "deletion." Withdrawal applies to papers with erroneous academic content not suitable for correction, requiring statement publication while retaining bibliographic information with "withdrawn" markings. Deletion applies to defamatory, rights-infringing, secret, legally-prohibited, or harmful content, allowing complete removal after application [14]. (2) Standardized workflow: misconduct identification, editorial office drafting and submission of statements/applications, and database processing. (3) Statement publication: journals should establish dedicated retraction columns and publish statements on their websites; databases should make statements freely accessible and create dedicated annual retraction archives.

3.1.2 Strengthen Database Supervision Relevant departments should supervise database accuracy, scientific validity, research integrity, and academic ethics, conducting random inspections of timely and standardized retraction processing. First, databases should be required to resolve existing retraction issues: compile all published retraction statements across databases; contact editorial offices to submit statements for all problematic papers; publish missing statements; standardize processing of all retracted papers (retaining only bibliographic information with "withdrawn" markings to prevent citation while ensuring traceability); and restore bibliographic information for deleted papers with "withdrawn" markings. Second, establish routine supervision mechanisms such as annual self-inspection reporting. Non-compliant databases should face penalties and rectification orders; severe cases may warrant suspension.

3.2 Databases Should Enhance Retraction Awareness and Establish Robust Systems As academic dissemination platforms and recorders of scientific development, databases bear responsibility for providing correct, trustworthy, and authoritative literature while objectively documenting publications and scientifically processing erroneous or integrity-violating papers. This eliminates researchers' skepticism and ensures confident reading and citation. Databases must prioritize proper processing of problematic papers, enhance retraction awareness, and establish robust systems.

3.2.1 Enhance Retraction Awareness Database staff should study retraction practices from authoritative international databases (Retraction Watch, Web of Science, ScienceDirect, PubMed, PubPeer) and domestic guidelines described in Section 1.2, understanding the international and domestic landscape of standardized retractions. They should actively advocate for nationally applicable retraction guidelines and cooperate in the fight against academic misconduct.

3.2.2 Establish Robust Retraction Systems Databases should establish dedicated retraction departments with workflows: receive editorial statements/applications → department review → process retracted papers. They

should reject individual author applications and maintain paper records of all statements/applications for traceability. Additionally, databases should conduct duplicate checks before uploading electronic journal files to prevent simultaneous publication and duplicate submissions, reducing retraction workload. For instance, Dong Peng's paper "Discussion on Manufacturing Production Scheduling Systems in Globalization Context" was published in 9 journals, and "Research on Production Operations Planning and Control from Supply Chain Perspective" in 18 journals—pre-upload duplicate checks could have prevented such cases.

Furthermore, relevant stakeholders should strengthen retraction training. After national guidelines are issued, major editorial associations should arrange expert lectures on retraction standards with serious case studies. Retraction guidelines could be incorporated into publishing professional qualification exam materials and the *Journal Publishing Management Regulations* as mandatory content, raising awareness among new editors regarding duplicate detection, academic misconduct identification, reference verification, and retraction processing.

Conclusion

All three major Chinese academic journal databases exhibit misconduct including: failure to publish required retraction statements; direct deletion after statement publication; non-standard processing after statement publication; deletion without statements; marking as retracted without statements; and non-processing of retractions from other databases. Relevant departments must formulate authoritative guidelines and strengthen supervision, while databases must enhance awareness and establish robust systems.

Limitations: This study excluded statements titled "Apology Statement" with academic misconduct content but without explicit retraction requests, and statements with titles but no content, making our data slightly conservative. Future research will include these categories to provide more comprehensive data for standardizing retraction practices and maximizing their deterrent effect in academic misconduct governance and research integrity promotion.

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Note: Figure translations are in progress. See original paper for figures.