

The Frontiers and Future Landscape of Research and Education on Value Rationality in Contemporary China

Qiang Bao*

School of Marxism, Guangxi Normal University, Guilin 541004, Guangxi Zhuang Autonomous Region, China

*Corresponding author: Qiang Bao, 896802994@qq.com

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Abstract: The importance of conducting in-depth research and education on value rationality in the new era is increasingly recognized. Therefore, it is essential to systematically grasp the themes, frontiers, and trends of research in this field, organizing the knowledge system to provide references for future studies. This necessitates clarifying the research achievements of scholars from different disciplines and institutions. Using the CiteSpace visualization analysis method, we can analyze, summarize, and synthesize research networks, hotspots, and knowledge structures, thereby forming a direction for advancing research. Through literature review methods and knowledge graph software analysis, it is believed that value rationality and instrumental rationality represent the rational attitudes individuals adopt when contemplating issues and putting them into practice. They are merely methods and should not be subjected to excessive value judgments. The relationship between value rationality and instrumental rationality is a focal point of societal concern, involving complex interdisciplinary issues with significant theoretical value and practical implications. In the future, the academic community needs to strengthen research collaboration, enhance the expansion of value rationality in various social practice fields, and conduct empirical studies to build consensus for the construction of Chinese society.

Keywords: Value rationality; Instrumental rationality; Knowledge graph; Chinese discourse; Chinese society

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1. Introduction

Value rationality and instrumental rationality are new sociological and value-related terms developed by Max Weber, who borrowed the philosophical term "rationality" and applied it to the field of sociology ^[1]. Contemporary scholarship on these two concepts is marked by vigorous research and debate. It is essential to clarify the current state of value rationality research, employing bibliometric analysis to inductively summarize the theoretical achievements of the previous period, while also projecting the future development of value rationality research to provide theoretical guidance for reference. CiteSpace is a visualization

software for conducting bibliometric analysis, which is utilized in this study to analyze the literature samples collected from the CNKI database for the benefit of relevant researchers and their studies.

2. Data source and research methodology

2.1. Data source

To derive valuable conclusions, it is imperative to rigorously select sample data. To ensure the credibility of the research findings, considering the authority, completeness, and academic impact of literature from the Peking University Chinese Core Journal Database, the CNKI database was utilized, employing "Value Rationality" as the search criterion. The sources of literature were chosen as "Journal Articles" + "Chinese Core Journals," and "CSSCI Journals," without a time restriction. This yielded literature data from 1995 to 2022. After excluding 13 irrelevant articles, a final selection of 284 articles from 1995 to 2022 was made as the basis for bibliometric analysis, with the search concluding on September 25, 2024. The aforementioned literature data were imported into CiteSpace software, and the research primarily followed these steps: First, an initial analysis of the literature distribution was conducted using the analysis software provided by the CNKI database, producing analytical charts; second, based on a close reading of the literature data, analyses were performed using CiteSpace to create graphs of author and institution collaboration, keyword cooccurrence, keyword clustering, and keyword co-occurrence over time, thereby grasping the overall structure of the knowledge system of value rationality; third, the research context of value rationality was analyzed through keywords focusing on themes, frontiers, and trends, interpreting the content and evaluating the overall dynamics and development frontiers of value rationality research, leading to conclusions regarding the future directions for deepening value rationality studies.

2.2. Research methodology

This paper comprehensively employed the analysis software provided by the CNKI database and CiteSpace software to analyze the sample documents. Firstly, using the analysis software provided by the CNKI database, the annual distribution of the sample documents was initially analyzed, and trends in the annual publication were depicted through graphical analysis. Secondly, CiteSpace was utilized to conduct corresponding data mining and quantitative analysis on the sample document data, extracting the knowledge base of research in the field of "value rationality." This approach enables capturing the latest developments and cutting-edge topics in "value rationality."

3. Statistics and analysis

3.1. Analysis of publication time distribution

The progress of research in a specific field can be reflected through a time-variant curve of the number of publications. A preliminary analysis of the article count from 1995 to 2022 reveals that value rationality has increasingly captured the attention of academia. This is largely due to the rapid accumulation of material wealth accompanying the development of the market economy, prompting essential questions: Who drives development, for whom is it pursued, and who benefits from its outcomes? Addressing these questions is paramount in the social sciences. Only through theoretical research on value rationality can we guide social and economic development, thereby laying the foundation for the comprehensive and free development of individuals and identifying scientifically sound and rational paths for practice.

As a theoretical focal point in political science, anthropology, sociology, management, and philosophy, value rationality stands as a prominent topic within philosophical research. **Figure 1** clearly delineates the publication trends of theoretical articles into two phases: the first phase, from 1995 to 2004, saw fewer than ten articles published annually, with some years lacking relevant publications. The second phase, from 2005 to 2022, exhibits a rising trend in publication numbers, with all years, except 2006, surpassing ten articles; notably, 2014 witnessed a peak of 20 publications, the highest to date. This underscores the necessity for academia and the publishing sector to pay due attention to value rationality research. Continuous effort is essential, with the academic community needing to timely update theoretical frameworks in alignment with the evolving era and party requirements, focusing on the contemporary, theoretical, and practical dimensions of value rationality to refine and enhance disciplinary theoretical systems.

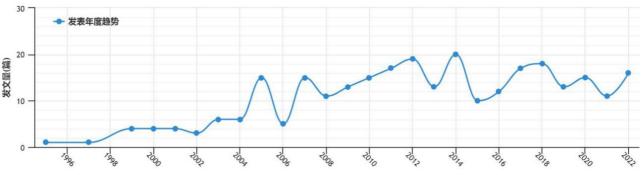


Figure 1. Annual trend of publications on research

3.2. Analysis of authors, institutions, and collaborative networks in publications

The degree of author collaboration in academic research is a crucial indicator for assessing the progress of a discipline. While the achievements of a single author can reflect their research capabilities, they fail to capture the comprehensive landscape of the field; robust research collaborations are essential for the maturation of academic systems. Research collaboration encompasses both institutional and author partnerships. To clearly and succinctly identify the academic collaborations and connections among research institutions and authors, the CiteSpace software was employed, selecting "author" + "institution" as the node types. This merged the distribution of institutions and authors, resulting in a knowledge graph of research collaboration in value rationality, as depicted in **Figure 2**. The density and thickness of the connecting lines in the graph reflect the intensity of collaboration between institutions and authors. In terms of author collaboration, the research on value rationality has formed several research groups centered around key figures such as Caiyun Wang, Guiquan Xu, Guojian Liu, Chenhong Ge, Ju Chen, Zushe Yuan, Rongzeng Liu, Keke Liu, Zhongjiang Wang, Dequan Zhu, and Yan Wang. However, an academic community characterized by mutual exchange and close ties among these groups has yet to be established.

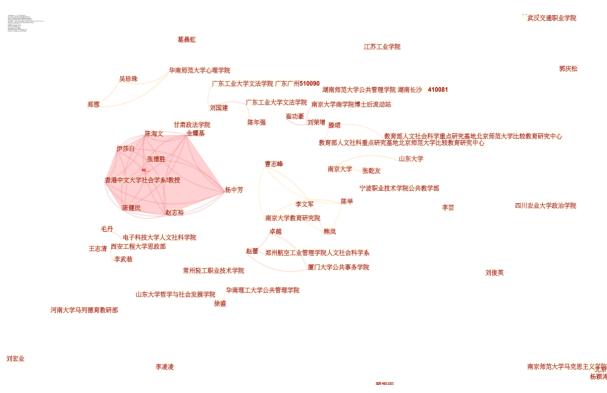


Figure 2. Knowledge graph of research collaboration

3.3. Distribution of highly cited literature

The frequency of citations for a particular piece of literature within a research field vividly illustrates its academic impact. Accordingly, the author analyzed highly cited literature using the CNKI database, with the conclusions presented in **Table 1**. Due to space constraints, only the top 10 highly cited works are listed. The period from 2002 to 2013 indicates that research on the term "value rationality" has a long history, showcasing a comprehensive theoretical exploration, interpretation, and elucidation that reflects the substantial academic influence and knowledge foundation of value rationality research. Prolonged study is conducive to forming a complete disciplinary system.

The most cited work in this field is "On the Doctrine of the Mean: Beyond Instrumental Rationality, Value Rationality, and Communicative Rationality," published by Desheng Zhang, Yaoji Jin, Haiwen Chen, and others in 2001, which has been cited 330 times. A close reading reveals that its research theme posits the existence of "Zhongyong Rationality" derived from traditional Chinese culture, alongside the instrumental, value, and communicative rationalities constructed by Western philosophers. This Zhongyong Rationality, rooted in the pluralistic value pursuits of modern Chinese society, embodies characteristics of Chinese culture and Confucian values. It represents not merely an inheritance of traditional Confucian culture, but a modern development built upon that foundation.

Zhongyong Rationality requires that parties engaged in the pursuit of their value objectives, particularly the stronger party, forgo certain self-interests in a balanced state of mind, aiming to reach a relatively reasonable agreement that maximizes collective interests as demanded by Zhongyong Rationality. This transcends the opposition and irreconcilability between instrumental rationality (or technical rationality) and value rationality, achieving modernity in Chinese society's handling of complex interest issues. Its significance far exceeds mere entanglement in how to realize the goal of value rationality alone ^[2]. The work

"Instrumental Rationality and Value Rationality: Understanding Weber's Sociological Thought," published by Kun Wang in 2005, has been cited 212 times. This article begins with Weber's four classifications of social action: value rationality, instrumental rationality, traditional action, and affective action. From a practical logic standpoint, "substantive rationality" possesses inherent superiority over "formal rationality"; however, "formal rationality" is also an essential internal characteristic for the functioning of capitalist society. Politicians should adhere to an "ethics of responsibility," bearing ultimate accountability for the outcomes of their political actions, rather than simply adhering to an "ethics of conviction," which focuses solely on maintaining the purity and legitimacy of political conduct. The outcomes of governance serve as the highest standard for evaluating politicians, yet this brings forth a significant contradiction between the "ethics of responsibility" and the "ethics of conviction" ^[1]. The research content and approach of these two most frequently cited works provide valuable insights for subsequent studies on value rationality.

Overall, the titles and research themes of the highly cited literature in Table 1 reveal that scholars focus on two primary issues: First, what are the connotations and extensions of value rationality? Second, how can value rationality be practiced in social life? Guiquan Xu pointed out that value rationality is gradually "withdrawing" from contemporary social life, while instrumental rationality continues to assert itself, marginalizing value rationality. Modern life necessitates the reasonable functioning of instrumental rationality; however, it is equally important to strengthen the guidance of value rationality over instrumental rationality. This synergy is essential for the sound development of value rationality and the harmonious progress of society as a whole ^{[3].} Yue Zhuo and Lei Zhao noted that the public sector generally adopts performance management methods, which exemplify a typical management behavior rooted in instrumental rationality. This approach demonstrates advantages in innovation, integration, and development, marking a significant innovation in modern management. However, in practice, it is crucial to emphasize the integration of value rationality into instrumental rationality management behaviors. Greater attention must be paid to the public's pursuit of values such as fairness, justice, and freedom, alongside enhancing the legal framework of public sectors and improving service efficiency ^{[4].} Ke Liu and Dongxiao Li argued that neither value rationality nor instrumental rationality should be neglected; rather, both must be integrated and work in synergy to construct a comprehensive spiritual world for human development. To effectively address a series of pressing issues in the human world, such as environmental concerns, widening wealth gaps, and declining social morality, reforms and developments must be implemented across multiple philosophical and practical dimensions. This will facilitate a fundamental transformation in human modes of activity, thereby promoting the comprehensive development of both the human spirit and the material world ^[5].

No.	Title	Authors	Journal	Publication date	Citation count
1	On the Doctrine of the Mean: Beyond Instrumental Rationality, Value Rationality, and Communicative Rationality	Zhang Desheng; Jin Yaoji; Chen Haiwen; Chen Jianmin; Yang Zhongfang	Sociological Research	2001-03-20	330
2	Instrumental Rationality and Value Rationality: Understanding Weber's Sociological Thought	Wang Kun	Gansu Social Sciences	2005-02-28	212

Table 1. List of the top 10 most cited res	search papers on value rationality
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Table 1 (Continued)

No.	Title	Authors	Journal	Publication date	Citation count	
3	The Rational Communication of Technology and Values: Information Dissemination in the Age of Artificial Intelligence—Reflections on Instrumental and Value Rationality in Algorithmic Recommendations	Chen Changfeng; Shi Ze	Journal of News 2017-09-08 Frontlines		155	
4	Performance Management in the Public Sector: The Dual Guiding Effect of Instrumental and Value Rationality	Zhuo Yue; Zhao Lei	Journal of Lanzhou 2006-09-28 University		131	
5	The Restoration of Value Rationality	Zhai Zhenming	Philosophical Research	phical Research 2002-05-25		
6	On Value Rationality	Xu Guiquan	Journal of Nanjing Normal University (Social Sciences Edition)	2003-09-25	114	
7	Seeking the Integration of Instrumental and Value Rationality: The Development Direction of Local Government Public Utility Management Performance Evaluation	Peng Guofu; Zhang Yuliang	Chinese Public Administration	2007-06-01	107	
8	Value Rationality and Instrumental Rationality: From Historical Separation to Contemporary Integration	Liu Ke; Li Dongxiao	Journal of Henan Normal University (Philosophy and Social Sciences Edition)	2005-10-30	44	
9	Cultivating Engineers with Both Instrumental and Value Rationality: Discussing the Goals of New Engineering Talent Development	Xiang Cong	Research on Higher Engineering Education	2017-11-28	76	
10	A Brief Analysis of the Distinction and Integration of Instrumental and Value Rationality	on and Integration mental and Value Zhang Yongqing; Li Yunhua		2008-12-20	70	

3.4. Keyword knowledge graph analysis 3.4.1. Co-occurrence network of keywords

Keywords are the core elements of research literature. A high frequency of a particular keyword indicates a robust research interest and a wealth of findings surrounding that keyword. By analyzing the frequency and distribution of keywords, one can identify the relevant hotspots within the field. The "keyword" was employed as a node type and the "pathfinder and pruning sliced networks" algorithm within CiteSpace software was utilized to construct a co-occurrence knowledge graph of keywords in value rationality research, as illustrated in **Figure 3**. The number of keyword nodes is 614, with 951 collaboration connections, reflecting a high connection density and relatively long links. Furthermore, the density value of the keyword co-occurrence knowledge graph is 0.0051, which is below the normal threshold of 0.1. This indicates that further research is needed to deepen understanding in this area, requiring relevant researchers to continuously enhance academic communication and collaborative efforts.

In **Figure 3**, the larger the graphical representation of a keyword node, the higher its frequency of occurrence in value rationality research, indicating that the research outcomes surrounding it have a more profound impact. The connections between keywords reflect the logical relationships of the relevant nodes within the realm of value rationality research. From **Figure 3**, it is evident that the most prominent keyword nodes in value rationality research include value rationality, instrumental rationality, rationality, scientific outlook on development, value, technological rationality, harmonious society, and democracy. These keywords occupy the central positions of the graph and cover the largest area, signifying their peak research interest within the field of value rationality. Moreover, the keyword "value rationality" belongs to the domains of value theory and political terminology, pointing towards macro-level concepts. These macro keywords form the semantic foundation of the entire value rationality research, prompting further exploration into the meso and micro dimensions of value rationality.

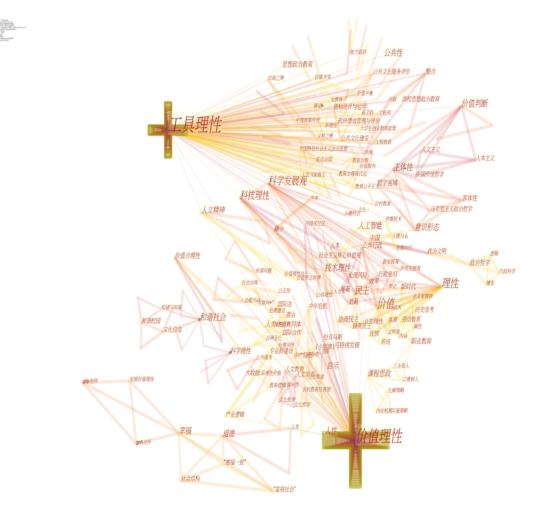


Figure 3. Co-occurrence knowledge graph of keywords in value rationality research

Next, the word frequency statistical function of CiteSpace was employed to identify the 20 keywords with the highest frequencies in value rationality research, as shown in **Table 2**. Beyond the aforementioned macro keyword nodes, significant keyword nodes in value rationality research also include publicness, vocational education, democratic politics, rural education, artificial intelligence, modernity, ideology, purposive rationality, ideological and political education, and humanistic spirit. These keywords gradually point towards the meso and micro levels in terms of semantic content. They are interconnected with macro keywords such as "value rationality," serving to refine the content of these macro concepts. The content of the meso and micro keywords reflects the academic community's inclinations regarding the specific aspects of value rationality research, embodying its contemporary, theoretical, and practical values.

No.	Keyword	Frequency	Initial year	No.	Keyword	Frequency	Initial year
1	Value Rationality	224	1995	11	Publicness	3	2009
2	Instrumental Rationality	139	1995	12	Vocational Education	3	2012
3	Rationality	8	2007	13	Democratic Politics	3	2011
4	Scientific Outlook on Development	7	2005	14	Rural Education	3	2005
5	Value	7	2007	15	Artificial Intelligence	3	2017
6	Technological Rationality	6	2001	16	Modernity	3	2002
7	Harmonious Society	5	2005	17	Ideology	3	2009
8	Democracy	5	2006	18	Purposive Rationality	3	1995
9	Technological Rationality	5	2009	19	Ideological and Political Education	3	2012
10	Integration	4	2005	20	Humanistic Spirit	3	2011

Table 2. Ranking of high-frequency and high-centrality keywords

3.4.2. Cluster analysis of keywords

By extracting the clustering labels of keywords in value rationality research, one can assess the frontiers of this field. Utilizing the clustering algorithm of CiteSpace software, a keyword clustering graph of value rationality research was created (**Figure 4**), presented in **Table 3**. Based on the structural characteristics of the clusters in **Figure 4**, along with the noun labels and their connections, further analysis can be conducted. As indicated in **Table 4**, value rationality research primarily forms nine significant clusters: #0 Value Rationality, #1 Instrumental Rationality, #2 Rationality, #3 Harmonious Society, #4 Phenomenology, #6 Algorithms, #8 Distinction between Agriculture and Commerce, #9 Distinction between Agriculture and Commerce, and #10 Logic. By utilizing CiteSpace keyword clustering information summary function, representative keywords under the aforementioned clustering labels were organized. Understanding these keywords aids in grasping the main research contents of each cluster, thereby elucidating the frontiers of value rationality research.



Figure 4. Cluster graph of keywords

Cluster ID	Cluster name	Keyword clusters (partial)
#0	Value Rationality	Value rationality, instrumental rationality, integration, democratic politics, rural education, higher education, value orientation, local government, ethics of duty and benefit, technological alienation, systems, political science, public welfare, poverty alleviation ethics, health security, happiness index, educational governance, cyberspace, rights stabilization, power stabilization, ceding and returning, public opinion, intelligent communication, people as masters of their own affairs
#1	Instrumental Rationality	Value rationality, humanistic spirit, innovation, public service, value rationality, community of shared future for mankind, counselors, social governance, sustainable development perspective, educational strategies, cultural inheritance, justice, new civilization narrative, interpersonal communication, value form world, humanistic education, cultural philosophy, historical rationality, de-sacralization, practical rationality, social anxiety, rural education anti-poverty, post-poverty era
#2	Rationality	Rationality, scientific development concept, value, technological rationality, democracy, public administration, efficiency, culture, public rationality, administrative organization, ethical risk, deliberative democracy, entrepreneurial spirit, scientific ethics, concealment, traditional development perspective, social action, cognitive rationality, e-governance, moderately prosperous society, view of civilization, correction, connotation, new development perspective, technology, principle of subjectivity, pragmatism, humanistic value rationality, nationalism, developmentalism, accounting, revelation, human-centered, tradition, sports, science, attributes, rational integration, elite democracy
#3	Harmonious Society	Harmonious society, scientific rationality, harmonious campus, construction and realization, cultural consciousness, technology, communist ideology, reconstruction and proper positioning, dualism, university spirit, adjustment, approach, integrity construction, new value rationality system, cultural productivity, entity
#4	Phenomenology	Ideology, value judgment, core socialist values, subjectivity, sociology of knowledge, philosophical perspective, integration and reconstruction, formal justice, teaching evaluation, Marxist political philosophy, objectivity, syllogism, humanism, socialism with Chinese characteristics, traditional Chinese philosophy, human-centered philosophy
#6	Algorithm	Technological rationality, artificial intelligence, integration, conflict, urbanization process, media technology, technological culture, intelligent media era, intrinsic scale, extrinsic scale, university governance, ethical boundaries, human-media relationship
#8	Distinction of Agriculture and Commerce	Happiness, morality, wisdom, GDP worship, GNH care, social structure, developmental value rationality, humanity

Cluster name	Directed research frontier
#0 Value Rationality, #1 Instrumental Rationality, #2 Rationality	Connotation and extension of value rationality
#3 Harmonious Society, #4 Phenomenology, #6 Algorithm, #8 Distinction of Agriculture and Commerce, #9 Distinction of Agriculture and Commerce, #10 Logic	Practice and reflection on value rationality

Table 4. Clustering names of value rationality research and their research frontiers

(1) Research Frontier One: Clusters #0 Value Rationality, #1 Instrumental Rationality, and #2 Rationality, collectively point to the thematic research on "the connotation and extension of value rationality." This includes a series of keywords such as democratic politics, rural education, higher education, value orientation, local government, the distinction between righteousness and profit, technological alienation, institutions, political science, public affairs, poverty alleviation ethics, social anxiety, rural education and anti-poverty, the post-poverty alleviation era, developmentalism, human-centered approaches, and people-oriented principles.

Value rationality and instrumental rationality are the paradigms of thought and practice upon which contemporary human society relies. It is not a matter of which form of rationality is superior or more valuable in terms of human benefit or practical significance; rather, it hinges on how humanity employs these two distinct forms of rationality. The term "rationality" originates from the Greek word "logos," representing a mode of thinking and behavior that transcends traditional habits, emotional impulses, and fluctuations. It is grounded in reasoned thought, standing in contrast to sensibility, and reflects a rational and lawful attitude towards the serious and objective consideration of problems and the resolution of conflicts.

Many believe that in a market economy, individuals are economic beings driven by rational economic development, often neglecting the baseline moral considerations ^[6]. Consequently, they might forsake or even undermine social and public interests for personal gain. This has led to the perception that instrumental rationality is always "present," even overwhelming value rationality, resulting in the latter's "withdrawal" or "marginalization." In truth, irrespective of the era, both instrumental rationality and value rationality represent attitudes toward rational thought and practice, devoid of any intrinsic value judgments ^[7].

Prior to the reform and opening up, value rationality was generally regarded as the celebrated rational attitude of society. However, in the post-reform era, instrumental rationality has become a significant attitude for many in their rational thinking and practice ^[8,9]. This does not imply the absence of value rationality; value rationality has always existed within social production and daily life practices. As China's social development progresses in breadth and depth, both value rationality and instrumental rationality, as two paradigms of human rational thought, should continuously expand their connotations and extensions in response to the needs of our times, rather than being confined to the original meanings established by Max Weber over a century ago ^[10,11].

Many scholars often hesitate to transcend Max Weber's definition of the concept of value rationality. However, the connotation and extension of value rationality evolve continuously with the development of the times. It is essential to consider and study both instrumental rationality and value rationality in conjunction, constantly exploring them within the practice of social life. A scientific analysis and study of value rationality and instrumental rationality from a theoretical perspective is needed to grasp the true essence of value rationality. This involves shedding the mystique that surrounds the academic term "value rationality" and genuinely returning to its practical guiding significance for humanity ^[12,13].

(2) Research Frontier Two: Clusters #3 Harmonious Society, #4 Phenomenology, #6 Algorithms, #8

Distinction between Agriculture and Commerce, #9 Distinction between Agriculture and Commerce, and #10 Logic, point toward thematic research on "the practice and contemplation of value rationality." This includes keywords such as harmonious society, scientific rationality, harmonious campus, communist ideology, integrity construction, a new value rationality system, value judgment, core socialist values, subjectivity, socialism with Chinese characteristics, traditional Chinese philosophy, humanism, the urbanization process, the age of intelligent media, internal measures, happiness, morality, wisdom, GDP worship, developmental value rationality, cultivating virtue, comprehensive education, implementation strategies, labor education, the new era, ideological and political education in the curriculum, political civilization, political philosophy, and political values.

The application of value rationality and instrumental rationality in social production, daily life, and human interaction is inherently aligned with the theoretical exploration of the theme "the practice and contemplation of value rationality." In contemporary society, as people face the tidal wave of the socialist market economy, the collision and impact of instrumental rationality and value rationality are ever-present. It is imperative to balance the contradictions and conflicts between these two rational attitudes, ensuring that individuals uphold a correct perspective on righteousness and profit during the construction of socialist modernization. This perspective must be appropriate for the times, adaptable to development, aligned with inner values, and resonate with the needs of social progress in China.

For instance, in fostering harmonious coexistence and mutual development between humanity and nature, and in strengthening overall environmental protection, the notion emerges that "the mountains of gold and silver are equivalent to green mountains and clear waters," advocating for green waters and lush mountains over mere material wealth. This perspective seeks to coordinate the long-term interests of China's socio-economic development with the short-term gains of a few, leveraging the construction of green mountains and clear waters to achieve wealth. Such an approach harmonizes long-term and overall interests with short-term and localized benefits, allowing both instrumental rationality and value rationality to exert their influence in their respective domains, thereby avoiding a binary confrontation.

At the level and height of rational thinking, it is crucial to discard binary, oppositional thinking and instead promote a Chinese philosophical approach that embraces inclusivity and integrated development. By comprehensively utilizing the advantages of both value rationality and instrumental rationality, we can achieve coordinated development in social production, daily life, and human interactions. This, indeed, embodies the true purpose of researching the theme of "the practice and contemplation of value rationality," carrying significant theoretical and practical implications.

3.4.3. Development path of keywords

The CiteSpace keyword temporal graph serves as a crucial reference for observing and assessing the shifts in research hotspots over time. A temporal graph of keywords in value rationality research is created, as depicted in **Figure 5**. The core node of value rationality research, "value rationality," first emerged in 1995, marking the academic community's initial recognition of value rationality as a theme for scholarly inquiry. This indicates that the concept has gradually evolved alongside the development of the times.

Over the nearly 30 years from 1995 to 2022, value rationality has consistently remained a focal point in Chinese academia. The period from 2005 to 2022 represents the most concentrated and frequent occurrence of keywords, suggesting that this interval is characterized by a significant focus on research related to value rationality. In contrast, the frequency of keyword occurrences prior to 2005 was relatively sparse, indicating

limited related research.

Thus, the developmental trend of value rationality research can be summarized as a slow growth phase from 1995 to 2004, followed by a rapid development phase from 2005 to 2022. This aligns with the results shown in **Figure 1**.

0工具理性 #1 工具理性 #2 理性 #3 和谐社会 通行大利 科子用の #4 现象学 王序供 #6 算法 MMARY 100 +200 ATM **#8** 农商之辨 #9 农商之辨 REAL #10 逻辑 100 Rinter Rint

Figure 5. Temporal distribution graph of keyword co-occurrence

4. Conclusion and prospects

4.1. Research conclusion

This article employed CiteSpace software to conduct a visual study of the core literature on value rationality, exploring the research characteristics, themes, frontiers, and trends in this field. Based on clarifying the overall development context of value rationality research, the following conclusions can be drawn.

Firstly, from the philosophical perspective of value rationality. Value rationality, rooted in the fundamental values upheld by individuals, embodies a fundamental worldview and methodology that is oriented towards the good and the uplifting, standing in contrast to instrumental rationality. Max Weber aptly borrowed the term "reason" from philosophy ^[13], which then found its application in the field of sociology, thereby creating the two important concepts of value rationality and instrumental rationality. Both value rationality and instrumental rationality are, in essence, neutral terms; they do not imply which is good or bad. Both coexist in society and align with the needs of social practice. However, some argue that in modern society, influenced by the capitalist mode of production and the ownership of capitalist means of production, individuals tend to adopt instrumental rationality in their thinking and actions, leading to the so-called "withdrawal" of value rationality and the "usurpation" of instrumental rationality. Yet in practical life, value rationality is often manifested in the actions of ordinary individuals, such as those who act heroically to help others or ordinary soldiers who abandon a comfortable life to serve their country on the frontiers. These acts embody value rationality and are commendable examples worthy of our admiration and emulation. From a philosophical standpoint, we should not exclusively laud value rationality while dismissing instrumental

rationality; rather, we must continuously elevate our understanding of both in accordance with the needs of societal development.

Secondly, from the perspectives of the connotation, extension, and practical aspects of value rationality. Value rationality continuously evolves and develops within human society shaped by the progression of the times, societal changes, and historical advancement, absorbing the essence of contemporary spirit. It is continually updated and refined, imbued with new value wisdom and ethical awareness, guiding and regulating human social life, and holds significant philosophical, sociological, economic, and managerial importance. The essence of value rationality lies in human social activities based on pure belief, whereby individuals engage in social actions guided by the inherent value and significance of these activities, regardless of their personal impacts or consequences, reflecting a crucial aspect of social practice. However, pure acts of value rationality are rarely seen in social life; thus, the extension of value rationality should be broadened to meet the demands of social development. For instance, in times of crisis affecting the nation, community, or others, ordinary individuals often step forward, yet they also consider their safety and adopt correct methods, thereby displaying certain instrumental rationality. This approach not only protects the interests of the nation, community, and others but also safeguards personal safety, and such behavior should also be commended. While value rationality differs from instrumental rationality, they are not entirely opposed. As social and economic development progresses, research in philosophy, sociology, economics, and management should fully account for the evolving relationships between society and the individual, avoiding the trap of rigid thinking regarding the research on value rationality.

4.2. Research prospects

Value rationality is a crucial method for educating the Chinese people, especially the younger generation, regarding their worldview, values, and life perspectives. It serves as an essential guarantee for realizing the great Chinese dream and is a vital tool for uniting and rallying the masses. Knowledge graph analysis indicates that improvements are still needed in the following areas:

The first area is advancing empirical research on value rationality. While the theoretical research on value rationality is abundant, it predominantly focuses on aspects such as concepts, connotations, characteristics, essence, requirements, and philosophical foundations, leaving empirical research to be explored more deeply. Currently, various modern technological methods, exemplified by information technology, are widely applied in social science research. There is a pressing need to continuously expand and deepen empirical and quantitative studies on value and instrumental rationality. This can facilitate the development of value rationality, obtaining more practical examples to support it, thereby enhancing its scientific and theoretical nature. Through the processing, handling, and inference of extensive data and research materials, the issue orientation, theoretical completeness, and practical operability of value rationality theory can be significantly improved. The focus should be on studying the implementation effects of new pathways for value rationality, emphasizing feedback on practical outcomes and theoretical revision research. By employing methods such as hypothesis analysis, field surveys, and mathematical model analysis, the practical value of value rationality theory can be validated, constructing a scientific empirical research system for value rationality.

Another area is strengthening interdisciplinary communication and collaborative research. Given the interdisciplinary nature of value rationality research, future studies should continue to expand the multifaceted disciplinary perspectives on value rationality, preventing the research content from becoming closed under a single disciplinary theoretical approach. Furthermore, it is essential to attract researchers and institutions from various fields to collaboratively deepen the content of multidisciplinary research. This will promote cooperative empirical investigations, sharing of research resources and information, inheritance of research methods, and unification of theoretical discourse systems, thereby gradually establishing a collaborative research and academic cooperation mechanism based on close ties among multiple disciplines. In light of the current need to build a philosophy and social science system with Chinese characteristics, strengthening the construction of a Chinese discourse system requires participation from multiple disciplines. It is not only necessary to integrate interdisciplinary research within the social sciences—such as enhancing joint studies on value rationality among philosophy, political science, communication studies, economics, sociology, anthropology, education, and political science—but also to employ natural science methods for the empirical research of value rationality. Therefore, the promotion and deepening of interdisciplinary collaborative research on value rationality is an urgent task.

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- (4) 2019 Guangxi Humanities and Social Sciences Development Research Center "Scientific Research Project: Innovation and Entrepreneurship Special Project": "Research on the Model for Building an International Development Platform for Innovation and Entrepreneurship Education in Universities—A Case Study of Confucius Institutes" (CXCY2019014)

Disclosure statement

The author declares no conflict of interest.

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